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Horse and Horsemanship



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1797



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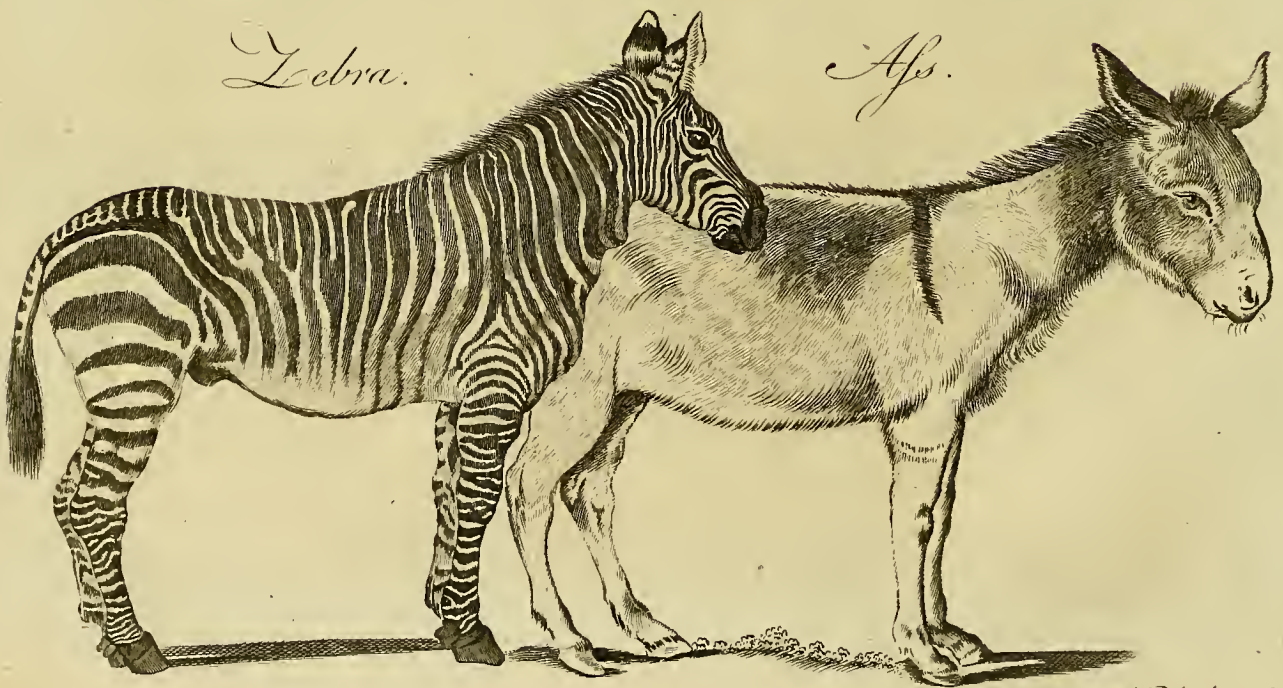


*Horse.*



*Zebra.*

*Ass.*





**Equity**, scribed revenue, they were expunged out of the equestrian list. The equestrian revenue just mentioned amounted to about 10,000 crowns.

Part of the ceremony whereby the honour of knight-hood was conferred amongst the Romans was the giving of a horse; for every *equus* or knight had a horse kept at the public charge, he received also the stipend of an horseman to serve in the wars, and wore a ring which was given him by the state. The *equites* composed a large body of men, and constituted the Roman cavalry; for there was always a sufficient number of them in the city, and nothing but a review was requisite to fit them for service.

The knights at last grew too powerful, were a balance for the senate and people, neglected the exercises of war, and betook themselves to civil employments. The *equites* were liable to be punished by the censors, and to suffer degradation. They were degraded by taking from them the horse which was kept for each of them at the public charge; this was called *equum adimere*.

**EQUITY**, in a general sense, the virtue of treating all other men according to reason and justice, or as we would gladly be treated ourselves when we understand aright what is our due. See **JUSTICE**.

**EQUITY**, in jurisprudence, is defined a correction or qualification of the law, generally made in that part wherein it faileth or is too severe. It likewise signifies the extension of the words of the law to cases unexpressed, yet having the same reason; so that where one thing is enacted by statute, all other things are enacted that are of the like degree. For example, the statute of *Glouc.* gives action of waste against him that holds lands for life or years; and by the equity thereof, a man shall have action of waste against a tenant that holds but for one year, or one half-year, which is without the words of the act, but within the meaning of it; and the words that enact the one, by equity enact the other. So that equity is of two kinds. The one abridges and takes from the letter of the law: the other enlarges and adds to it; and statutes may be construed according to equity, especially where they give remedy for wrong, or are for expedition of justice. Equity seems to be the interposing *law of reason*, exercised by the lord chancellor in extraordinary matters to do equal justice; and by supplying the defects of the law, gives remedy in all cases. See **CHANCERY**.

**EQUITY**, in mythology, sometimes confounded with *Justice*, a goddess among the Greeks and Romans, represented with a sword in one hand and a balance in the other.

**EQUIVALENT**, is understood of something that is equal in value, force, or effect, to another.

Equivalence is of various kinds, in propositions, in terms, and in things.

*EQUIVALENT Propositions.* See **EQUIPOLLENCE**.

*EQUIVALENT Terms* are where several words that differ in sound have yet one and the same signification; as *every body was there, and nobody was absent, nihil non, and omne*.

*EQUIVALENT Things*, are either *moral, physical, or statical*. *Moral*, as when we say that the commanding or advising a murder is a guilt equivalent to that of the murderer. *Physical*, as when a man who has the strength

VOL. VI. Part II.

of two men is said to be equivalent to two men, *Statical*, whereby a less weight becomes of equal force with a greater, by having its distance from the centre increased.

**EQUIVOCAL TERMS** or words, among logicians, are those which have a doubtful or double meaning.

According to Mr Locke, the doubtfulness and uncertainty of words has its cause more in the ideas themselves, than in any incapacity of the words to signify them; and might be avoided, would people always use the same term to denote the same idea or collection of ideas: but, adds he, it is hard to find a discourse on any subject where this is the case; a practice which can only be imputed to folly or great dishonesty; since a man, in making up his accounts, might with as much fairness use the numeral characters sometimes for one sometimes for another collection of units.

*Equivocal Generation*, the production of animals without the intercourse between the sexes, by the influence of the sun or stars, &c.

This kind of generation is now quite exploded by the learned.

**EQUIVOCATION**, the using a term or expression that has a double signification. Equivocations are expedients to save telling the truth, and yet without telling a falsity. The fathers are great patrons of equivocations and mental reservations, holding that the use of such shifts and ambiguities is in many cases allowable.

**EQUULEUS**, or **ECCULEUS**, in antiquity, a kind of rack used for extorting a confession, at first chiefly practised on slaves, but afterwards made use of against the Christians.

The equuleus was made of wood, having holes at certain distances, with a screw, by which the criminal was stretched to the third, sometimes to the fourth, or fifth holes, his arms and legs being fastened on the equuleus with cords; and thus was hoisted aloft, and extended in such a manner, that all his bones were dislocated. In this state red-hot plates were applied to his body, and he was goaded in the sides with an instrument called *ungula*.

**EQUULEUS**, **EQUICULUS**, and *Equus Minor*, the horse's head, in astronomy, a constellation of the northern hemisphere, whose stars in Ptolemy's catalogue are 4, in Tycho's 4, in Hevelius's 6, and in Mr Flamsteed's 10.

**EQUUS**, in zoology, a genus of quadrupeds belonging to the order of belluæ. This genus comprehends the horse, the mule, the ass, the zebra, and the quagga: they have six erect and parallel fore-teeth in the upper jaw, and six somewhat prominent ones in the under jaw; the dog-teeth are solitary, and at a considerable distance from the rest; and the feet consist of an undivided hoof.

1. The *caballus*, or **HORSE**, has a long flowing mane, and the tail covered on all parts with long hairs.

The horse, in a domestic state, is a bold and fiery animal; equally intrepid as his master, he faces danger and death with ardour and magnanimity. He delights in the noise and tumult of arms, and seems to feel the glory of victory: he exults in the chase; his eyes sparkle with emulation in the course. But though bold and intrepid, he is docile and tractable: he knows how to

govern and check the natural vivacity and fire of his temper. He not only yields to the hand, but seems to consult the inclination of his rider. Constantly obedient to the impressions he receives, his motions are entirely regulated by the will of his master. He in some measure resigns his very existence to the pleasure of man. He delivers up his whole powers; he reserves nothing; he will rather die than disobey. Who could endure to see a character so noble abused! who could be guilty of such gross barbarity!

This character, though natural to the animal, is in some measure the effect of education. His education commences with the loss of liberty, and is finished by constraint. The slavery of the horse is so ancient and so universal, that he is but rarely seen in a natural state. Several ancient writers talk of wild horses, and even mention the places where they were to be found. Herodotus takes notice of white savage horses in Scythia; Aristotle says they are to be found in Syria; Pliny, in the northern regions; and Strabo, in Spain and the Alps. Among the moderns, Cardan says, that wild horses are to be found in the Highlands of Scotland and the Orkney isles; Olaus, in Muscovy; Dapper, in the island of Cyprus; Leo and Marmol, in Arabia and Africa, &c. But as Europe is almost equally inhabited, wild horses are not to be met with in any part of it: and those of America were originally transported from Europe by the Spaniards; for this species of animals did not exist in the new world. The Spaniards carried over a great number of horses, left them in different islands, &c. with a view to propagate that useful animal in their colonies. These have multiplied incredibly in the vast deserts of those thinly peopled countries, where they roam at large without any restraint. M. de Salle relates, that he saw, in the year 1685, horses feeding in the meadows of North America, near the bay of St Louis, which were so ferocious that nobody durst come near them. Oexmelin says, that he has seen large troops of them in St Domingo running in the valleys: that when any person approached, they all stopped; and one of them would advance till within a certain distance, then snort with his nose, take to his heels, and the whole troop after him. Every author who takes notice of these horses of America, agree that they are smaller and less handsome than those of Europe. These relations sufficiently prove, that the horse, when at full liberty, though not a fierce or dangerous animal, has no inclination to associate with mankind; that all the softness and ductility of his temper proceeds entirely from the culture and polish he receives in his domestic education, which in some measure commences as soon as he is brought forth.

The motions of the horse are chiefly regulated by the bit and the spur; the bit informs him how to direct his course, and the spur quickens his pace. The mouth of the horse is endowed with an amazing sensibility: the slightest motion or pressure of the bit gives him warning, and instantly determines his course.

The horse has not only a grandeur in his general appearance, but there is the greatest symmetry and proportion in the different parts of his body. The regularity and proportion of the different parts of the head gives him an air of lightness, which is well supported by the strength and beauty of his chest. He erects his head, as if willing to exalt himself above the condition

of other quadrupeds: his eyes are open and lively; his ears are handsome, and of a proper height; his mane adorns his neck, and gives him the appearance of strength and boldness.

At the age of two years, or two years and a half, the horse is in a condition to propagate; and the mare, like most other females, is ready to receive him still sooner. But the foals produced by such early embraces are generally ill-made and weakly. The horse should never be admitted to the mare till he is four or four and a half; this is only meant with regard to draught-horses. Fine horses should not be admitted to the mare before they be six years old; and Spanish stallions not till seven. The mares are generally in season from the beginning of April to the end of June; but their chief ardour for the horse lasts but about 15 or 20 days, and this critical season should always be embraced. The stallion ought to be found, well made, vigorous, and of a good breed. For fine saddle-horses, foreign stallions, as Arabians, Turks, Barbs, and Andalusians, are preferable to all others. Next to these, British stallions are the best; because they originally sprang from those above-mentioned, and are very little degenerated. The stallions of Italy, and especially the Neapolitans, are very good. The best stallions for draught or carriage horses, are those of Naples, Denmark, Holstein, and Freezeland. The stallions for saddle-horses should be from 14 to 15 hands high, and for draught horses at least 15 hands. Neither ought the colour of stallions to be overlooked; as a fine black, grey, bay, sorrel, &c. Besides these external qualities, a stallion ought to have courage, tractability, spirit, agility, a sensible mouth, sure limbs, &c. These precautions in the choice of a stallion are the more necessary, because he has been found by experience to communicate to his offspring almost all his good or bad qualities, whether natural or acquired.

The mare contributes less to the beauty of her offspring than the stallion; but she contributes perhaps more to their constitution and stature: for these reasons, it is necessary that the mares for breed be perfectly sound, and make good nurses. For elegant horses, the Spanish and Italian mares are best; but for draught-horses, those of Britain and Normandy are preferable. However, when the stallions are good, the mares of any country will produce fine horses, provided they be well made and of a good breed.

Mares go with young 11 months and some days. They bring forth standing; contrary to the course of most other quadrupeds, who lie during this operation. They continue to bring forth till the age of 16 or 18 years; and both horses and mares live between 25 and 30 years. Horses cast their hair once a-year, generally in the spring, but sometimes in the autumn. At this time they are weak, and require to be better fed and taken care of than at any other season.

In Persia, Arabia, and most eastern countries, they never geld their horses, as is done in Europe and China. This operation greatly diminishes their strength, courage, and spirit; but it makes them good humoured, gentle, and tractable. With regard to the time of performing this operation, the practice of different countries is different: some geld their horses when a year old, and others at 18 months. But the best and most general practice is to delay the operation till they be.



be two years old at least: because, when the gelding is delayed for two years or more, the animals retain more of the strength and other qualities which naturally belong to the male.

As the utility of horses surpasses that of all other domestic animals, it may be of use to subjoin some marks by which the age and other properties of horses may be distinguished.

In old horses, the eye-pits are generally deep; but this is only an equivocal mark, being also found in young horses begot by old stallions. The most certain knowledge of the age is to be obtained from the teeth. Of these a horse has 40; 24 grinders or double-teeth, four tusches, and 12 fore-teeth: mares have no tusches, or at least very short ones. It is not from the grinders that we know the age; it is discovered first by the fore-teeth, and afterwards by the tusches. The 12 fore-teeth begin to shoot within 12 days after the colt is foaled. These first, or foal-teeth, are round, short, not very solid, and are cast at different times, to be replaced by others. At the age of two years and a half, the four middle fore-teeth are cast, two in the upper jaw, and two in the lower. In one year more, four others drop out, one on each side of the former, which are already replaced. When he is about four years and a half old, he sheds four others, and always next to those which have fallen out and been replaced. These four foal-teeth are replaced by four others, but are far from growing so fast as those which replaced the eight former, and are called the *corner-teeth*; they replace the four last foal-teeth, and by these the age of a horse is discovered. They are easily known, being the third both above and below, counting from the middle of the jaw. They are hollow, and have a black mark in their cavity. When the horse is four years and a half old, they are scarce visible above the gum, and the cavity is very sensible: at six and a half, they begin to fill; and the mark continually diminishes and contracts till seven or eight years, when the cavity is quite filled up, and the black spot effaced. After eight years, these teeth ceasing to afford any knowledge of the age, it is judged of by the tusches: which are four teeth adjoining to those last mentioned; and, like the grinders, are not preceded by any other teeth. The two in the lower jaw usually begin to shoot at three years and a half, and those of the upper jaw at four; continuing very sharp-pointed till six. At 10, the upper seem blunted, worn out, and long, the gum contracting itself as its years increase; the barer therefore they are, the older is the horse. From 10 to 13 or 14 years, little can be seen to indicate the age; but at that time some hairs of the eye-brows begin to turn grey. This mark, however, is equivocal, like that drawn from the depth of the eye-pits; horses from old stallions or mares, having grey hairs in the eye-brows when they are not above nine or ten years old. In some horses the teeth are of such a hardness as not to wear; and in such the black mark always subsists, being never effaced by time: but the age of these horses, which are called *beguts* by the French, is easily known; the hollow of the tooth being filled up, and at the same time the tusches very long. It has been farther observed, that this is more common in mares than in horses. The age of a horse may be also known, though less accu-

rately, by the bars in his mouth, which wear away as he advances in years.

When the horse is without blemish, the legs and thighs are clean, the knees straight, the skin and shank thin, and the back-fine strong and well-braced. The sinews and the bones should be so distinct, as to make the legs appear thin and lathy, not full and round. The pastern joints should never be large and round; nor must there be any swelling near the coronet. The hock should be lean and dry, not puffed up with wind. With regard to the hoof, the coronet should be equally thick, and the horn shining and greyish. A white horn is a sign of a bad foot, for it will wear out in a short time; and likewise when the horn is thin, it is liable to be spoiled in shoeing, and by travelling hard on stony grounds. This is best known when the shoe is taken off; for then the verge all round the sole will appear thin, and the horse will wince at the least touch of the pincers.

A strong foot has the fibres of the hoof very distinct running in a direct line from the coronet to the toe, like the grain of wood. In this case, care must be taken to keep the foot moist and pliable. The greatest inconvenience attending a hard strong foot, is its being subject to rifts and fissures, which cleave the hoof quite through sometimes from the coronet down to the bottom.

A narrow heel is likewise a defect; and when it is not above two fingers in breadth, the foot is bad. A high heel causes a horse to trip and stumble often; and the low one, with long yielding pasterns, is very apt to be worn quite away on a journey. Too large a foot in proportion to the rest of the body, renders a horse weak and heavy.

The head of a horse should be small, and rather lean than fleshy. The ears should be small, erect, thin, sprightly, and pointed. The forehead, or brow, should be neither too broad nor too flat, and should have a star or snip thereon. The nose should rise a little, and the nostrils should be wide that he may breathe more freely. The muzzle should be small, and the mouth neither too deep nor too shallow. The jaws should be thin, and not approach too near together at the throat, nor too high upwards towards the onset, that the horse may have sufficient room to carry his head in an easy graceful posture. The eyes should be of a middle size, bright, lively, and full of fire. The tongue should be small, that it may not be too much pressed by the bit; and it is a good sign when his mouth is full of white froth, for it shows that he will not soon be overheated.

The neck should be arched towards the middle, growing smaller by degrees from the breast and shoulders to the head. The hair of the main should be long, small, and fine; and if it be a little frizzled, so much the better. The shoulders should be pretty long; the withers thin, and enlarge gradually from thence downwards; but so as to render his breast neither too narrow nor too gross. A thick-shouldered horse soon tires, and trips and tumbles every minute; especially if he has a thick large neck at the same time. When the breast is so narrow that the fore-thighs almost touch, they are never good for much. A horse of a middle size should have the distance of five or six inches

Equus.

between his fore-thighs, and there should be less distance between his feet than his thighs near the shoulders when he stands upright.

The body or carcase of a horse should be of a middling size in proportion to his bulk, and the back should sink a little below the withers; but the other parts should be straight, and no higher behind than before. He should also be home-ribbed; but the short ribs should not approach too near the hanches, and then he will have room to fetch his breath. When a horse's back is short in proportion to his bulk, and yet otherwise well limbed, he will hold out a journey, tho' he will travel slow. When he is tall, at the same time with very long legs, he is but of little value.

The wind should never be overlooked in the choice of a horse: and it may easily be known by his flanks, if he is broken-winded, when he stands quiet in the stable; because he always pinches them in with a very slow motion, and drops them suddenly. A thick-winded horse fetches his breath often, and sometimes rattles and wheezes. This may be always discovered when he is put to brisk exercises.

The temper of a horse should always be observed; a vicious horse generally lays his ears close to his pole, shows the whites of his eyes, and looks fullen and dogged. An angry horse may be known by his frowning looks; and he generally seems to stand in a posture of defence. When he is very vicious, he pays no regard to the groom that feeds him: However, some horses that are ticklish will lay back their ears, and yet be of a good disposition. A fearful horse is apt to start, and never leaves it off till he is old and useless. A fretful horse is very unfit for a journey; and you may discover his temper as soon as he gets out of the stable. A dull, heavy, sluggish horse may be easily known, whatever tricks are used to rouse his spirits.

With regard to the colour of a horse, the bright bay, and indeed all kinds of bays in general, are accounted good colours. The chestnut horse is generally preferable to the sorrel, unless the former happens to be bald, or party-coloured, with white legs. Brown horses have generally black manes and tails, and their joints are of a rusty black. Those of this colour that are dappled, are much handsomer than the rest. Horses of a shining black, and well marked without too much white, are in high esteem for their beauty. A star, or blaze, or white muzzle, or one or more feet tipped with white, are thought to be rather better than those that are quite black.

Of greys, the dappled are accounted best; though the silver grey make a more beautiful appearance, and often prove good. The iron grey with white manes and tails are thought not to be so hardy. Greys of every kind will turn white sooner or later; but the nutmeg grey, when the dappled parts incline to bay or chestnut, are said to be good hardy horses. Roan horses have a diversity of colours mixed together; but the white is more predominant than the rest. They are all generally hardy, and fit for the road; and some are exceeding good. Those of a strawberry colour most resemble the sorrel, and they are often marked with white on the face and legs. When the bay is blended with it, he seems to be tinged with claret; and some of these prove to be very good. Dun, fallow, and

cream-coloured horses have a list down their backs; and their manes and tails are black. Dun horses are seldom chosen by gentlemen, and yet they may be very useful to the country farmer. The fallow and cream-coloured are more esteemed, both for beauty and use. Those horses that are finely spotted with gay colours like leopards are a great rarity, and for that reason are only in the hands of great men.

There is some difference in horses according to the different countries where they are bred. For instance, in France, those of Bretagne are pretty strong made, and have generally black hair, or brown bay; and they have good legs and feet, with a hardy mouth, and a head short and fleshy; but in general they are pretty clumsy. The horses of Franche Comté are said to have the legs of tigers, and the belly of a hind; but they are short and thick, and of a middle size; being much more proper for drawing than riding. The horses of Gascony are not unlike those of Spain; but they are not so handsome nor so active, and therefore they are more proper to draw carriages. The Limousin horses are very vicious, and are good for little till they are six years old. Their colour is generally bay, or a bay brown. The horses of Normandy are much like those of Bretagne; and those of Poitou have good bodies, legs, feet, and eyes; but they are far from being handsome.

The horses of Germany are much better and more handsome than those of the Low Countries. They are of great use for carriages; but much more for the army, and for drawing the artillery. They have a great deal of hair, especially about the legs. They are not large, but they are well set; and yet they have tender feet. The Hungarian horses are excellent for the coach, as well as for riding: but they are large, though well proportioned; and they are of all colours, and in general very swift.

The Danish horses are low, short, and square; but they have a fine head, and short hair. The horses of the Low Countries are very fit for the coach, and they are best known by the name of *Flanders-mares*. The Polish horses are like the Danish; only they have not so fine a fore-hand: their colour is generally a bright bay, and that of the outward peel of an onion; and they are fiery and vicious. The horses of Switzerland are pretty much like those of Germany; which is no wonder, since the Germans purchase a great number of them. The horses of Piedmont are fiery, of a middle size, and of all sorts of colours; their legs are good and handsome, their eyes fine, their ears small, and their mouths good; but they do not carry their heads well.

The horses of Naples and Italy are generally ill-made and lean; and yet they are good and useful, for they are light and proper for racing, though not for a long course; they never do well in a colder climate. The Spanish horses are very well made and handsome, as well as very active and nimble; they have good eyes, handsome legs and heads, and are easily managed; they are also good for racing, if they are well kept: however, they are not so good in northern climates as in their own country. The Turkish horses are of different shapes; but they are generally swift, tho' their mouths are bad. Most of them are white; tho' there

Equus.



Equus. there are other colours; and they are large, hardy, strong, and fit for the road.

The horses of Barbary, commonly called *barbs*, have strong hoofs, and are more proper for racing than any others whatever; some have said they never grow old, because they preserve their vigour to the last. They are excellent stallions; and some of them are used as such in Britain: however, the Arabian horses are not quite so good as the Barbary, though some think they are both of the same kind; only those that are used to the deserts of Arabia are always in action. The horses of the Gold Coast of Guinea are very few in number, and in other parts of that coast there are none at all; for many of the negroes, when they have been first brought over to our American plantations, have expressed great admiration at the sight of a horse, and even been afraid to come near one.

The horses of the Cape of Good Hope were originally brought from Persia: and they are generally small, and of a chestnut colour; for those that are natives of that country are all wild, and could never yet be tamed. The horses of China are good, and more particularly those in the province of Yun Nan; for they are very vigorous, though a little low. The horses of the Eluth Tartars are good and full of fire; and their size is much the same as the Polish horses: they are afraid of nothing; not even of lions and tigers: but perhaps this may be owing to use. In the country of the Mogul they are very numerous, and of all colours: they are generally of the middle size, though there are some as large and as handsome as those in Europe. The wild horses of Tartary differ very little from the tame; but they are so swift, that they avoid the arrows of the most skilful hunters.

The breed of horses in Great Britain is as mixed as that of its inhabitants: the frequent introduction of foreign horses has given us a variety that no single country can boast of: most other countries produce only one kind; while ours, by a judicious mixture of the several species, by the happy difference of our soils, and by our superior skill in management, may triumph over the rest of Europe, in having brought each quality of this noble animal to the highest perfection.

In the annals of Newmarket may be found instances of horses that have literally outstripped the wind, as the celebrated M. Condamine has lately shown in his remarks on those of Great Britain. Childers is an amazing instance of rapidity; his speed having been more than once exerted equal to  $82\frac{1}{2}$  feet in a second, or near a mile in a minute.

The species used in hunting, is a happy combination of the former with others superior in strength, but inferior in point of speed and lineage: an union of both is necessary; for the fatigues of the chase must be supported by the spirit of the one, as well as by the vigour of the other.

No country can bring a parallel to the strength and size of our horses destined for the draught; or to the activity and strength united of those that form our cavalry. In London, there are instances of single horses that are able to draw on a plain, for a small space, the weight of three tons; but could with ease, and for a continuance, draw half that weight. The pack-horses of Yorkshire, employed in conveying the manufactures

of that country to the most remote parts of the kingdom, usually carry a burden of 420 pounds; and that indifferently over the highest hills of the north, as well as the most level roads. But the most remarkable proof of the strength of our British horses, is to be drawn from that of our mill-horses: some of these will carry at one load 13 measures, which at a moderate computation of 70 pounds each, will amount to 910; a weight superior to that which the lesser sort of camels will bear: this will appear less surprising, as these horses are by degrees accustomed to the weight; and the distance they travel no greater than to and from the adjacent hamlets.

Our cavalry, in the late campaigns (when they had opportunity), showed over those of our allies, as well as of the French, a great superiority both of strength and activity: the enemy was broken through by the impetuous charge of our squadrons; while the German horses, from their great weight and inactive make, were unable to second our efforts; though those troops were actuated by the noblest ardour.

The present cavalry of this island only supports its ancient glory. It was eminent in the earliest times: our scythed chariots, and the activity and good discipline of our horses, even struck terror into Cæsar's legions: and the Britons, as soon as they became civilized enough to coin, took care to represent on their money the animal for which they were so celebrated. It is now impossible to trace out this species; for those which exist among the *indigenæ* of Great Britain, such as the little horses of Wales and Cornwall, the hobbies of Ireland, and the shelties of Scotland, though admirably well adapted to the uses of those countries, could never have been equal to the work of war: but probably we had even then a larger and stronger breed in the more fertile and luxuriant parts of the island. Those we employ for that purpose, or for the draught, are an offspring of the German or Flemish breed, meliorated by our soil and a judicious culture.

The English were ever attentive to an exact culture of these animals; and in very early times set a high value on their breed. The esteem that our horses were held in by foreigners so long ago as the reign of Athelstan, may be collected from a law of that monarch, prohibiting their exportation, except they were designed as presents. These must have been the native kind, or the prohibition would have been needless; for our commerce was at that time too limited to receive improvement from any but the German kind, to which country their own breed could be of no value. But when our intercourse with the other parts of Europe was enlarged, we soon laid hold of the advantages this gave of improving our breed. Roger de Belesme, earl of Shrewsbury, is the first that is on record: he introduced the Spanish stallions into his estate in Powysland, from which that part of Wales was for many ages celebrated for a swift and generous race of horses. Giraldus Cambrensis, who lived in the reign of Hen. II., takes notice of it; and Michael Drayton, cotemporary with Shakespeare, sings their excellence in the sixth part of his Polyolbion. This kind was probably destined to mount our gallant nobility, or courteous knights for feats of chivalry, in the generous contests of the tilt-yard. From these sprung, to speak the language of the times, the flower of coursers, whose elegant form added  
 charms.

Equus.

charms to the rider, and whose activity and managed dexterity gained him the palm in that field of gallantry and romantic honour.

The increase of our inhabitants, and the extent of our manufactures, together with the former neglect of internal navigation to convey those manufactures, multiplied the number of our horses: an excess of wealth, before unknown in these islands, increased the luxury of carriages, and added to the necessity of an extraordinary culture of these animals: their high reputation abroad has also made them a branch of commerce, and proved another cause of their vast increase.

The all-wise Creator hath finely limited the several services of domestic animals towards the human race; and ordered that the parts of such, which in their lives have been the most useful, should after death contribute the least to our benefit. The chief use that the *exuvie* of the horse can be applied to, is for collars, traces, and other parts of the harness; and thus, even after death, he preserves some analogy with his former employ. The hair of the mane is of use in making wigs; of the tail, in making the bottoms of chairs, floor-cloths, and chords; and to the angler in making lines.

Plate  
CLXXXIII.

#### TECHNICAL DESCRIPTION of the Parts of a HORSE.

*The Fore Part.* 1. The forehead. 2. The temples. 3. Cavity above the eye. 4. The jaw. 5. The lips. 6. The nostrils. 7. The tip of the nose. 8. The chin. 9. The beard. 10. The neck. 11. The mane. 12. The fore-top. 13. The throat. 14. The withers. 15. The shoulders. 16. The chest. 17. The elbow. 18. The arm. 19. The plate vein. 20. The chestnut. 21. The knee. 22. The flank. 23. The main tendons. 24. The fetlock joint. 25. The fetlock. 26. The pastern. 27. The coronet. 28. The hoof. 29. The quarters. 30. The toe. 31. The heel.—*The Body.* 32. The reins. 33. The fillets. 34. The ribs. 35. The belly. 36. The flanks.—*The Hind Part.* 37. The rump. 38. The tail. 39. The buttocks. 40. The hanches. 41. The stifle. 42. The thighs. 43. The hock. 44. The kerb. 45. The point of the hock.

For the breeding, rearing, &c. of horses, see the articles, COLT, HORSE, and STALLION; for the method of training and managing them, see HORSEMANSHIP; and for their diseases and cure, see FARRIERY.

2. The *Asinus*, or *Ass*, has long slouching ears, short mane, tail covered with long hairs at the end. The body is usually of an ash colour, with a black bar across the shoulders.

The *Koulan*, or ass in a wild state (the *onager* of the ancients), varies from the tame in several respects, and requires a more particular description. The forehead is very much arched: the ears are erect, even when the animal is out of order; sharp-pointed, and lined with whitish curling hairs; the irides are of a livid brown; the lips thick; and the end of the nose sloping steeply down to the upper lip: the nostrils are large and oval. It is much higher on its limbs than the tame ass, and its legs are much finer, but it again resembles it in the narrowness of its chest and body; it carries its head much higher; and its skull is of a surprising thinness. The mane is dusky, about three or four inches long, compo-

Equus.

sed of soft woolly hair, and extends quite to the shoulders: the hairs at the end of the tail are coarse, and about a span long. The colour of the hair in general is a silvery white; the upper part of the face, the sides of the neck and body, are of a flaxen-colour; the hind part of the thighs are the same; the fore part divided from the flank by a white line, which extends round the rump to the tail: the belly and legs are also white: along the very top of the back, from the mane quite to the tail, runs a stripe of bushy waved hairs of a coffee-colour, broadest above the hind part, growing narrower again towards the tail; another of the same colour crosses it at the shoulders (of the males only), forming a mark, such as distinguishes the tame asses: the dorsal band and the mane are bounded on each side by a beautiful line of white, well described by Oppian, who gives an admirable account of the whole. Its winter coat is very fine, soft, and silky, much undulated, and likeliest to the hair of the camel; greasy to the touch: and the flaxen colour, during that season, more exquisitely bright. Its summer coat is very smooth, silky, and even, with exception of certain shaded rays that mark the sides of the neck, pointing downwards.

These animals inhabit the dry and mountainous parts of the deserts of Great Tartary, but not higher than lat. 48. They are migratory, and arrive in vast troops to feed, during the summer, in the tracts east and north of lake Aral. About autumn they collect in herds of hundreds, and even thousands, and direct their course towards the north of India, to enjoy a warm retreat during winter. But Persia is their most usual place of retirement: where they are found in the mountains of Casbin, some even at all times of the year. If we can depend on Barboza, they penetrate even into the southern parts of India, to the mountains of Malabar and Golconda. According to Leo Africanus, wild asses of an ash-colour are found in the deserts of northern Africa. The Arabs take them in snares for the sake of their flesh. If fresh killed, it is hot and unfavourable: if kept two days after it is boiled, it becomes excellent meat. These people, the Tartars and Romans, agreed in their preference of this to any other food: the latter indeed chose them young, at a period of life in which it was called *Lalifo*; (vide *Martial*. xiii. 97.) The epicures of Rome preferred those of Africa to all others. The grown onagri were introduced among the spectacles of the theatre; and their combats were preferred even to those of the elephants.

The manners of the wild ass are very much the same with those of the wild horse and the *dhikketei*. They assemble in troops under the conduct of a leader; and are very shy. They will, however, stop in the midst of their course, and even suffer the approach of man at that instant, but will then dart away with the rapidity of an arrow dismissed from the bow. This Herodotus speaks to, in his account of those of Mesopotamia; and Leo Africanus, in that of the African.

They are extremely wild. Holy writ is full of allusions to their savage nature. "He scorneth the multitude of the city, neither regardeth he the crying of the driver," (Job xxxix. 7.) Yet they are not untamable. The Persians catch and break them for the draught: they make pits, half-filled with plants to lessen the fall, and take them alive. They break, and hold



hold them in great esteem, and sell them at a high price. The famous breed of asses in the east is produced from the koulan reclaimed from the savage state, which highly improves the breed. The Romans reckoned the breed of asses produced from the onager and tame ass to excel all others. The Tartars, who kill them only for the sake of the flesh and skins, lie in ambush and shoot them. They have been at all times celebrated for their amazing swiftness; for which reason the Hebrews called them *Pere*; as they styled them *Arod* from their braying. Their food is the saltiest plants of the deserts, such as the kalis, atriplex, chenopodium, &c.; and also the bitter milky tribe of herbs: they also prefer salt-water to fresh. This is exactly conformable to the history given of this animal in the book of Job; for the words "barren land", expressive of its dwelling, ought, according to the learned Bochart, to be rendered "salt places." The hunters lie in wait for them near the ponds of brackish water, to which they resort to drink: but they are not of a thirstily nature, and seldom have recourse to water. These animals were anciently found in the Holy Land, Syria, the land of Uz or Arabia Deserta, Mesopotamia, Phrygia, and Lycaonia. But at present they are entirely confined to the countries above mentioned. Chagrin, a word derived from the Tatar *foghre*, is made of the skin of these animals, which grows about the rump, and also those of horses, which is equally good. There are great manufactures of it at Astracan and in all Persia. It is a mistake to suppose it to be naturally granulated, for its roughness is entirely the effect of art. The Persians use the bile of the wild ass as a remedy against the dimness of sight: and the same people, and the Nogayan Tartars, have been known to endeavour the most infamous bestialities with it, in order to free themselves from the disorders of the kidneys.

The tame or *domestic ass*, is a humble, patient, and tranquil, animal. He submits with firmness to strokes and chastisement: he is temperate both as to the quantity and quality of his food; he contents himself with the rigid and disagreeable herbage which the horse and other animals leave to him and disdain to eat: he is more delicate with regard to his drink, never using water unless it be perfectly pure. As his master does not take the trouble of combing him, he often rolls himself on the turf among thistles, ferns, &c. Without regarding what he is carrying, he lies down to roll as often as he can, seeming to reproach his master for neglect and want of attention. When very young, the ass is a gay, sprightly, nimble, and gentle animal. But he soon loses these qualities, probably by the bad usage he meets with; and becomes lazy, untractable, and stubborn. When under the influence of love, he becomes perfectly furious. The affection of the female for her young is strong: Pliny assures us, that when an experiment was made to discover the strength of maternal affection in a she-ass, she run through the flames in order to come at her colt. Although the ass be generally ill used, he discovers a great attachment to his master; he smells him at a distance, searches the places and roads he used to frequent, and easily distinguishes him from the rest of mankind. The ass has a very fine eye, an excellent scent, and a good ear. When overloaded, he hangs his head, and sinks his

ears: when too much teased or tormented, he opens his mouth and retracts his lips in a disagreeable manner, which gives him an air of ridicule and derision. If you cover his eyes, he will not move another step; if you lay him on his side, and place his head so that one eye rests on the ground, and cover the other with a cloth, he will remain in this situation without making any attempt to get up. He walks, trots, and gallops in the same manner as the horse; but all his motions are slower. Whatever be the pace he is going at, if you push him, he instantly stops.

The cry of the horse is known by the name of *neighing*; that of the ass, by *braying*, which is a long, disagreeable noise, consisting of alternate discords from sharp to grave and from grave to sharp; he seldom cries but when pressed with hunger or love: the voice of the female is clearer and more piercing than that of the male.

The ass is less subject to vermin than other animals covered with hair; he is never troubled with lice, probably owing to the hardness and dryness of his skin; and it is probably for the same reason that he is less sensible to the whip and spur than the horse. The teeth of the ass fall out and grow at the same age and in the same manner as those of the horse; and he has nearly the same marks in his mouth.

Asses are capable of propagating when two years old. The females are in season during the months of May and June. The milk appears in the dugs ten months after impregnation; she brings forth in the twelfth month, and always one at a time. Seven days after the birth, the season of the female returns, and she is again in a condition to receive the male. The colt should be taken from her at the end of five or six months, that the growth and nourishment of the fetus may not be obstructed. The stallion or jack-ass should be the largest and strongest that can be found; he should be at least three years old, and never ought to exceed ten. The ass, like the horse, takes three or four years in growing, and lives till he be 25 or 30: he sleeps less than the horse, and never lies down to sleep but when excessively fatigued. He is more robust, and less subject to diseases, than the horse.

Travellers inform us that there are two sorts of asses in Persia; one of which is used for burdens, they being slow and heavy: the other is kept like horses for the saddle; for they have smooth hair, carry their head well, and are much quicker in their motion; but when they ride them, they sit nearer their buttocks than when on a horse: they are dressed like horses, and are taught to amble like them; but they generally cleave their nostrils to give them more room for breathing. Dr Russel likewise tells us they have two sorts in Syria; one of which is like ours; and the other very large, with remarkable long ears; but they are both put to the same use, which is, to carry burdens.

In America there were originally no asses at all, nor yet horses: but they were carried thither long ago, at first by the Spaniards, and afterwards by other nations, where they multiplied greatly; inasmuch, that, in some places, there are whole droves of them that run wild, and are very hard to be caught. Asses in general carry the heaviest burdens in proportion to their bulk; and, as their keeping costs little or nothing, it

*Equus.* is a great wonder that they are not put to more uses than they generally are among us. The flesh of the common ass is never eaten in these parts of the world; though some pretend their colts are tender, and not disagreeable.

3. The *Hemionus* of Pallas, or WILD MULE, is of the size and appearance of the common mule; with a large head, flat forehead growing narrow toward the nose, eyes of a middle size, the irides of an obscure ash-colour; 38 teeth in all, being two in number fewer than in a common horse; ears much longer than those of a horse, quite erect, lined with a thick whitish curling coat; neck slender, compressed; mane upright, short, soft, of a greyish colour; in place of the foretop, a short tuft of downy hair about an inch and three quarters long. The body is rather long, and the back very little elevated; the breast protuberant and sharp. The limbs are long and elegant; the thighs thin, as in a mule's. Within the fore-legs there is an oval callus; in the hind legs none. The hoofs are oblong, smooth, and black; the tail is like that of a cow, slender, and for half of its length naked, the rest covered with long ash-coloured hairs. Its winter coat grey at the tips, of a brownish ash-colour beneath; about two inches long, in softness like the hair of a camel, and undulated on the back. Its summer coat is much shorter, of a most elegant smoothness, and in all parts marked most beautifully with small vortexes. The end of the nose is white; from thence to the foretop inclining to tawny. The buttocks are white; as are the inside of the limbs and belly. From the mane a blackish testaceous line extends along the top of the back to the tail, broadest on the loins, and growing narrower towards the tail. The colour of the upper part of the body is a light yellowish grey, growing paler towards the sides. The length, from the tip of the nose to the base of the tail, is six feet seven inches; length of the trunk of the tail one foot four; of the hairs beyond the end, eight inches. The height of the animal is three feet nine. This species inhabits the deserts between the rivers Onon and Argun in the most southern part of Siberia, and extends over the vast plains and deserts of western Tartary, and the celebrated sandy desert of Gobi, which reaches even to India. In Siberia they are seen only in small numbers, as if detached from the numerous herds to the south of the Russian dominions. In Tartary they are particularly conversant about Taricnoor, a salt lake at times dried up. They shun wooded tracts and lofty snowy mountains. They live in separate herds, each consisting of a chief, a number of mares and colts, in all to the number of about 20; but seldom so many, for commonly each male has but five and sometimes fewer females. They copulate towards the middle or end of August; and bring for the most part but one at a time, which by the third year attains its full growth, form, and colour. The young males are then driven away from their paternal herds, and keep at a distance till they can find mates of their own age which have quitted their dams. These animals always carry their heads horizontally; but when they take to flight, hold them upright, and erect their tail. Their neighing is deeper and louder than that of a horse. They fight by biting and kicking, as usual with the horse: they are fierce and untameable; and even those which

have been taken young, are so intractable as not to be broken by any art which the wandering Tartars could use. Yet was it possible to bring them into fit places, and to provide all the conveniencies known in Europe, the task might be effected: but it is doubted whether the subdued animal would retain the swiftness it is so celebrated for in its state of nature. It exceeds that of the antelope; it is even proverbial; and the inhabitants of Thebet, from the fame of its rapid speed, mount on it Chammo their god of fire. The Mongolians despair of ever taking them by the chace; but lurk behind some tomb, or in some ditch, and shoot them when they come to drink or eat the salt of the desert. They are excessively fearful animals, and provident against danger. A male takes on him the care of the herd, and always is on the watch. If they see a hunter, who by creeping along the ground has got near them, the centinel takes a great circuit, and goes round and round him, as discovering somewhat to be apprehended. As soon as the animal is satisfied, it rejoins the herd, which sets off with great precipitation. Sometimes its curiosity costs it its life; for it approaches so near as to give the hunter an opportunity of shooting it. But it is observed, that in rainy or in stormy weather, these animals seem very dull, and less sensible of the approach of mankind. The Mongolians and Tungusi, according to Du Halden, kill them for the sake of the flesh, which they prefer to that of horses, and even to that of the wild boar, esteeming it equally nourishing and wholesome. The skin is also used for the making of boots. Their senses of hearing and smelling are most exquisite: so that they are approached with the utmost difficulty. The Mongolians call them *dzhikketaei*, which signifies "the eared;" the Chinese, *yo to tse*, or "mule." In ancient times the species extended far to the south. It was the hemionos or half ass of Aristotle, found in his days in Syria, and which he celebrates for its amazing swiftness and its fecundity, a breeding mule being thought a prodigy; and Pliny, from the report of Theophrastus, speaks of this species being found in Cappadocia, but adds they were a particular kind.

The domestic MULES of present times (*equus mulus* of Gesner and Linnæus) are the offspring of the horse and the ass, or ass and mare; are very hardy, and have more the form and disposition of the ass than the horse. The finest are bred in Spain; very large ones in Savoy.

4. The ZEBRA. This animal has the figure and gracefulness of the horse, joined to the swiftness of the stag. He is about seven feet long, from the point of the muzzle to the origin of the tail, and about four feet high. The colour of his skin is beautiful and uniform, consisting of alternate parallel rings of black and white, disposed in the most regular manner, as represented in the plate. He is generally less than the horse and larger than the ass. The zebra is found nowhere but in the eastern and southern provinces of Africa, from Ethiopia to the Cape of Good Hope, and from the Cape of Good Hope to Congo. The Dutch have been at great pains to tame and use them for domestic purposes, but with little success. He is hard-mouthed, and kicks when any person attempts to touch or come near him. He is restless and obitinate as a mule: but perhaps the wild horse is naturally as



Era  
Erasmus.

untractable as the zebra; for it is probable, if he were early accustomed to obedience and a domestic life, he would become as docile as the horse.

5. The quacha, or quagga, is striped like the former on the head and body, but with fewer lines. The flanks are spotted; the rump is plain; the ground colour of the head, neck, body, and rump, a bright bay: the belly, thighs, and legs are white, and free from all marks. This species, till of late, has been supposed to be the female of the zebra; but recent observations prove that the male and female zebra are marked alike. This differs likewise in being thicker and stronger made, and in being more tractable; for instance, one had been so far broken as to draw in a cart. The Hot-tentots also distinguish them from the former, by the names of *quagga* and *opeagha*.

ERA, in chronology. See *ÆRA*.

ERANARCHA, a public officer among the ancient Greeks, whose business was to preside over and direct the alms and provisions made for the poor. Cornelius Nepos, in his life of Epaminondas, describes his office thus: When any person was reduced to poverty, taken captive, or had a daughter to marry, which he could not effect for want of money, &c. the eranarcha called an assembly of friends and neighbours, and taxed each according to his means and estate, to contribute towards his relief.

ERANTHEMUM, in botany: A genus of the monogynia order, belonging to the diandria class of plants; and in the natural method ranking with those of which the order is doubtful. The corolla is quinquefid, with the tube filiform; the antheræ without the tube; the stigma simple.

ERASISTRATUS, a celebrated physician, grandson to the philosopher Aristotle. He discovered by the motion of the pulse the love which Antiochus had conceived for his mother-in-law Stratonice, and was rewarded with 100 talents for the cure by the father of Antiochus. He was a great enemy to bleeding and violent physic.

ERASMUS (Desiderius), born at Rotterdam in 1467. He lost his father and mother at 14 years of age; and was committed to the care of certain guardians, who would force him to be an ecclesiastic, which he refused for a long time. However, he was obliged to assume the religious habit among the canons regular in the monastery of Stein near Tergou; but afterwards obtained a dispensation from his vows. He was the most learned man of the age in which he lived; and contributed, by his example and his writings, to the restoration of learning in the several countries in which he occasionally resided, viz. Italy, Switzerland, Holland, France, and England: with the last, he was most satisfied; and found the greatest encouragement from Henry VIII. Sir Thomas More, and all the learned Englishmen of those days. He published a great many books; and died at Basil in 1536. He was buried honourably, and his memory is still held in veneration. He had, however, many enemies; and as he did not embrace the reformation, and yet censured many things in popery, he hath been treated injuriously both by Catholics and Protestants. The works of Erasmus in 10 vols folio were published at Leyden in 1706, in a very handsome manner, under the care

Vol. VI. Part II.

of M. Le Clerc. Dr Jortin published his life in one vol. 4to, 1758.

ERASTIANS, a religious sect or faction which arose in England during the time of the civil wars in 1647, thus called from their leader Thomas Erastus, whose distinguishing doctrine it was, that the church had no right to discipline, that is, no regular power to excommunicate, exclude, censure, absolve, decree, or the like.

ERATO (from *εραω* I love), in mythology, the name of one of the nine muses who presided over love-poetry. To this muse some have ascribed the invention of the lyre and lute; and she is represented with a garland of myrtles and roses, holding a lyre in one hand and a bow in the other, and at her side a Cupid with his torch. There is also a Nereid of the same name.

ERATOSTHENES, a Cyrenæan philosopher, historian, and poet; called for his learning *Plato Minor*. He was keeper of the famous library at Alexandria; and was greatly in favour with Ptolemy Euergetes, by whose order he wrote a history of the Theban kings of Egypt, which succession was entirely omitted by Manetho. He thus fixed the Egyptian chronology, and his authority is by many preferred to that of Manetho. He wrote many other things, a catalogue of which is to be seen in Fabricius, Vossius, &c. but his only piece now remaining entire is a description and fabulous account of the stars. He starved himself in old age through grief for the dimness of his sight, about the 10th or 12th year of Ptolemy Epiphanes, 194 B. C.

ERATOSTRATUS, an Ephesian who burnt the famous temple of Diana the same night that Alexander the Great was born. This burning, as some writers have observed, was not prevented or seen by the goddess of the place, who was then present at the labours of Olympias, and at the birth of the conqueror of Persia. Eratosthratus did this villany merely to eternize his name by so uncommon an action.

EREBUS (*Ερεβος*, from *ערב* night), in mythology, a term denoting darkness. According to Hesiod, Erebus was the son of Chaos and the night, and the father of the day. This was also the name of part of the *inferi* among the ancients: they had a peculiar expiation for those who were detained in Erebus.

Erebus was properly the gloomy region, and distinguished both from Tartarus the place of torment, and Elysium the region of bliss: according to the account given of it by Virgil, it forms the third grand division of the invisible world beyond the Styx, and comprehends several particular districts, as the *limbus infantum*, or receptacle for infants; the *limbus* for those who have been put to death without cause; that for those who have destroyed themselves; the fields of mourning, full of dark groves and woods, inhabited by those who died for love; and beyond these, an open champaign country for departed warriors.

ERECTION, in a general sense, the art of raising or elevating any thing; as the erection of a perpendicular, &c. It is also used in a figurative sense; as the erection of a bishopric, marquissate, &c.

ERECTION is particularly used by medical writers for the state of the penis when swelled and distended

Erastus  
Erection.

Erigit  
||  
Ereca.

by the action of the muscles called *erectores*. See ANATOMY, p. 739.

There is also an erection of the clitoris which is performed by muscles for that purpose.

EREMIT. See HERMIT.

ERETRIA (anc. geog.), a town of Eubœa, situated on the Euripus, in the south-west of the island. A very ancient city, and the largest of the island, after Chalcis. After being demolished by the Persians, it was restored on an adjoining spot, according to Strabo, who mentions a school of Eretrian philosophers there. The Abantes of Homer were of Eubœa.

ERFORT, a town of Germany, in the circle of Upper Saxony, the capital of Thuringia, and subject to the elector of Mentz. It is defended by good ramparts; and has a castle on an eminence, which commands the town. Its inhabitants are almost all Lutherans, but its principal churches belong to the Catholics. There are several handsome structures, both public and private; but the houses in general are but indifferently built. E. Long. 11. 14. N. Lat. 50. 49.

ERGASTULUM, among the Romans, was a prison, work-house, or house of correction, where slaves by the private authority of their masters were confined and kept for their offences to hard labour. The Greeks had a place of confinement of this sort called *Συρραγωγίον*.

ERGOT, in farriery, is a stub, like a piece of soft horn, about the bigness of a chefnut, placed behind and below the pattern-joint, and commonly hid under the tuft of the fetlock.

ERICA, HEATH, in botany: A genus of the monogynia order, belonging to the octandria class of plants; and in the natural method ranking under the 18th order, *Bicornes*. The calyx is tetraphyllous; the corolla quadrifid; the filaments inserted into the receptacle; the anthera bifid; the capsule quadrilocular. Of this there are four species, natives of Britain; which are so well known, that no description needs be given of them. In the Highlands of Scotland this plant is made subservient to a great variety of purposes. The poorer inhabitants make walls for their cottages with alternate layers of heath and a kind of mortar made of black earth and straw. The woody roots of the heath are placed in the centre; the tops externally and internally. They make their beds of it, by placing the roots downwards; and the tops only being uppermost, they are sufficiently soft to sleep upon. Cabbins are also thatched with it. In the island of May, ale is frequently made by brewing one part of malt and two of the tops of young heath; sometimes adding hops. Boethius relates, that this liquor was much used by the Picts. Woollen cloth boiled in alum water, and afterwards in a strong decoction of heath-tops, comes out of a fine orange colour. The stalks and tops will tan leather. Befoms and faggots to burn in ovens are also made of this plant. It is also used for filling up drains that are to be covered over. Sheep and goats will sometimes eat the tender shoots, but they are not fond of them. Cattle not accustomed to feed on heath, give bloody milk; but they are soon relieved by drinking plentifully of water. Horses will eat the tops. Bees extract a great deal of honey from

the flowers; and, where heath abounds, the honey has a reddish cast. There are many exotic species with which our green-house collections are enriched and adorned, as the triflora, tubiflora, australis, &c.

ERIDANUS (anc. geog.) a river of Attica, falling into the Ilissus.—Another Eridanus, the more ancient name of the Padus, an appellation ascribed by Pliny to the Greeks; followed in this by Virgil. It rises in mount Vesulus, in the Alpes Cottiae, and dividing the Cisalpine Gaul into the Cispadana and Transpadana, and swelled on each hand with no inconsiderable rivers from the other Alps and the Apennine, falls at seven months into the Adriatic. Famous in mythology, from the story of Phaëton; whose sisters, the Heliades, were here changed into poplars, according to Ovid.

ERIDANUS, in astronomy, a constellation of the southern hemisphere, in form of a river.—The stars in the constellation Eridanus, in Ptolemy's catalogue, are 34; in Tycho's, 19; and in the British Catalogue, 84.

ERIE, a vast lake to the westward of Pennsylvania, in North America, situated between 80° and 87° W. Long. and between 41° and 42° N. Lat.

ERIGENA, or SCOTUS, (John), a famous scholastic divine, born about the beginning of the ninth century; but where, is a matter of dispute among authors. Bale and Pits say he was born at St David's in Wales; Dempster, Mackenzie, and Henry, that he was born at Ayr in Scotland; which they infer from his names *Erigena* and *Scotus*, by the latter of which he was generally distinguished by his cotemporary writers. But Du Pin and Sir James Ware assert that he was by birth an Irishman; Ireland being in those days called *Scotia*, and by the natives *Erin*. They agree, however, in relating that he travelled to Athens, where he acquired a competent knowledge of the Greek and other oriental languages; and that he afterwards resided many years in the court of Charles the Bald, king of France, who, on account of his singular abilities, treated him as his intimate friend and companion. He slept frequently in the royal apartment; and was constantly admitted to the king's table. "We may judge (says a modern historian) of the freedom which he used with Charles, by the following repartee. As the king and Scotus were sitting one day at table, opposite to each other, after dinner, drinking a cheerful glass, the philosopher having said something that was not quite agreeable to the rules of French politeness, the king in a merry humour asked him, Pray what is between a *Scot* and a *fat*? To which he answered, "Nothing but the table." See *Henry's History of Great Britain*, vol. I. p. 344. who quotes this story from *Hoveden's Annal. ad an. 86*. Quer. What language were they talking when this *bon mot* was uttered?

During his residence with Charles, he wrote several books of scholastic divinity; which, though absurd enough, were at that time not sufficiently so to secure him from the imputation of heterodoxy; and on that account the pope commanded Charles the Bald to send him to Rome; but the king had too great a regard for his companion to trust him with his holiness. One of the chief controversies in which Scotus was engaged, and with which the pope was much offended, was concerning the real presence and blood of Christ in the wafer.

Eridanus  
||  
Erigena.



Horn  
||  
Horners.

be taken to keep it clear, as it is apt to be clogged by a thin fluid that gradually oozes out and fills up the passage. Some have practised sawing off the horn; but, according to the best observations, it does not succeed better than boring. From the cases Dr Tufts has seen, he is led to conclude that injections are in general unnecessary; that, when the distemper is early discovered, no more is required than a proper opening into the horn, keeping it sufficiently clear for the admission of fresh air, the removal of the compression, and the discharge of floating matter. But when the distemper has communicated its effects to the brain, so as to produce a high degree of inflammation, it is much to be doubted whether any method of cure will succeed.

*HORN-Fish, Gar-fish, or Sea-Needle.* See ESOX.

*HORN-Work*, in fortification, an outwork composed of two demi-bastions joined by a curtain. See FORTIFICATION.

**HORNBY**, a town of Lancashire in England, seated on a branch of the river Lune, and beautified with a handsome parochial chapel. The ruins of a decayed castle are still to be seen here. W. Long. 2. 20. N. Lat. 54. 6.

**HORN-CASTLE**, a town of Lincolnshire in England. It had a castle, as the name imports; from the architecture of which, and the Roman coins that are sometimes dug up here, it is thought to have been a camp or station of the Romans. The town is well built, and is almost surrounded with water. It is a signiory of 13 lordships. In these lordships there are several chapels for the convenience of the inhabitants, who are at too great a distance from the mother-church, and pretty numerous. It has a market on Saturdays, and fairs in June and August.

**HORNDON**, a town of Essex, in England. It stands near a rivulet, that at a small distance from hence falls into the Thames, which is there called the *Hope*. E. Long. 0. 30. N. Lat. 51. 20.

**HORNECK** (Dr Anthony), a learned and pious divine, was born at Baccharach, in the Lower Palatinate, in 1641. He studied divinity under Dr Spanheim at Heidelberg; and afterwards coming to England, completed his studies at Oxford, and became vicar of Allhallows in that city. In 1665, he removed into the family of the duke of Albemarle; and was tutor to his grace's son, then lord Torrington. The duke presented him to the rectory of Doulton in Devonshire, and procured for him a prebend in Exeter. He was afterwards chosen preacher of the Savoy. In 1693, he was collated to a prebend in Westminster, and the same year admitted to a prebend in the cathedral of Wells. He published, 1. The great law of consideration. 2. The happy acetick. 3. Delight and judgment. 4. The fire of the altar. 5. The exercise of prayer. 6. The crucified Jesus. 7. Several sermons, and other works. He died in 1696, and was interred in Westminster abbey, where a monument is erected to his memory.

**HORNERS**, those people whose business it is to prepare various utensils of the horns of cattle. The horners were a very ancient and considerable fraternity in the city of London some hundred years ago. In the reign of Edward II. they complained to parliament, that by foreigners buying up the horns in Eng-

land, they were in danger of being ruined, and this business lost to the nation. For this reason was made the statute 6 Edw. IV. by which the sale of horns to foreigners (except such as the said horners refused) was prohibited; and the wardens had power granted them to search all the markets in London and 24 miles round, and to inspect Sturbridge and Ely fairs, to prevent such practices, and to purchase horns at stated prices. But on plausible pretences this law was repealed in the reign of James I. and thereupon the old evil revived. The horners again applied to parliament, and king Edward's statute was renewed (excepting as to the inspection of the fairs), and still remains in force. The importation of unwrought horns into this country is also prohibited. In 1750, there were exported to Holland 514,500 lantern-leaves, besides powder flasks. There was formerly a duty of 20 shillings a thousand, under which in 1682 were exported 76,650; but in the reign of George I. this duty was taken off, and these and all other manufactures made of horns may be exported free. The present company of horners were incorporated January 12. 1638; and consist of a master, two wardens, and nine assistants, without livery or hall. They have a warehouse in Spitalfields, to which the horns are sent as brought from town and country markets, and thence regularly divided, the widows and orphans of deceased members having equal shares.

**HORNET**, in zoology, a species of wasp. See VESPA.

**HORNING**, in Scots law, a writing issuing from the signet, in his majesty's name, at the instance of a creditor against his debtor, commanding him to pay or perform within a certain time, under pain of being declared rebel, and by a caption put in prison.

**HORNIUS** (George), professor of history at Leyden, was born in the Palatinate, and died at Leyden in 1670. He was a little maniacal towards the end of his life; which disorder was supposed to be occasioned by the loss of 6000 florins he had entrusted with an alchemist at the Hague. His works are, 1. *Historia Ecclesiastica ad an. 1666*. This has been well esteemed. 2. *De Originibus Americanis*, 1652, 8vo. 3. *Geographia Vetus & Nova*. 4. *Orbis Politicus*. He was a man of vast reading, rather than great parts.

**HORNSEY**, a town in Yorkshire, 188 miles from London. It is almost surrounded by a small arm of the sea; and the church having a high steeple, is a noted sea-mark. Not many years ago there was a street here called *Hornsey beck*, which was washed away by the sea, except a house or two. E. Long. 0. 6. N. Lat. 54. 0.

**HORNSEY**, a town of Middlesex, five miles north of London. It is a long straggling place, situated in a low valley, but extremely pleasant, having the new-river winding through it. Its church, of which Highgate is a hamlet, is supposed to be built with the stones that came from Lodge-Hill, the bishop of London's hunting-seat in his park here; it having been his manor from the most ancient times. About a mile nearer this is a coppice of young trees, called *Hornsey-wood*, at the entrance of which is a public house, to which great numbers of persons resort from the city. This house being situated on the top of a hill, affords a delightful prospect of the neighbouring country.

**HORPIPE**, a common instrument of music in Wales,

Hornet  
||  
Hornpipe.

Horologium,  
Horoscope

Wales, consisting of a wooden pipe, with holes at stated distances, and a horn at each end; the one to collect the wind blown into it by the mouth, and the other to carry off the sounds as modulated by the performer.

HORNPIPE is also the name of an English air, probably derived from the above instrument. The measure of this air is triple time, with six crotchets in a bar; four of which are to be beat with the hand down and two up.

HOROLOGIUM, *Ὁρολογιον* (composed of *ὥρα hora*, "time, hour," and *λόγος* "speech, discourse"), a common name among ancient writers for any instrument or machine for measuring the hours; (see CHRONOMETER).—Such are our clocks, watches, sun-dials, &c. See CLOCK, WATCH DIAL, and CLEPSYDRA.

Modern inventions and gradual improvements, have given birth to some new terms that come properly under this head, and annexed new meanings to others totally different from what they had originally. All chronometers that announced the hour by striking on a bell, were called *clocks*: thus, we read of pocket-clocks, though nothing could seem more absurd than to suppose that a clock, according to the modern idea, should be carried in the pocket. In like manner, all clocks that did not strike the hour were called *watches* or *time-pieces*; and the different parts of a striking clock were distinguished by the watch-part and the clock-part; the former meaning that part which measures the time, and the latter the part which proclaims the hours. In the report of Sir Isaac Newton to the house of commons, anno 1713, relative to the longitude act, he states the difficulties of ascertaining the longitude by means of a watch: yet it is obvious, from several circumstances, that his remarks were directly to be understood of a time-piece regulated by a pendulum; for his objections are founded on the known properties of the pendulum, some of which differ essentially from the properties of the balance and spring. It is also to be remembered, that all the attempts of Huygens for finding the longitude were by means of pendulum clocks that did not strike the hour, and consequently, according to the language of the times, were called *watches*. At this time such machines for measuring time as are fixed in their place are called *clocks*, if they strike the hour: if they do not strike the hour, they are called *time-pieces*; and when constructed with more care, for a more accurate measure of time, they are called *regulators*. Some artists of late have affected to call such watches as were constructed for astronomical and nautical observations by the name of *time-pieces*, probably to intimate that they possess the advantages of those constructed with a pendulum.

Mr John Harrison first gave the name of *time-keeper* to his watch, for the performance of which he received from parliament the sum of L. 20,000. See LONGITUDE.

For the account of the principles of this machine, see TIME-KEEPER. And for the chief improvements that have been made for the more accurate measure of time, see PALLETS, PENDULUM, and SCAPEMENT.

HOROSCOPE, in astrology, the degree or point of the heavens rising above the eastern point of the horizon at any given time when a prediction is to be made of a future event: as, the fortune of a person

then born, the success of a design then laid, the weather, &c. The word is composed of *ὥρα hora*, "hour," and the verb *σκέπτομαι*, *spēto*, *confidero*, "I consider." Horoscope

They were formerly so infatuated with horoscopes, that Albertus Magnus, Cardan, and others, are said to have had the temerity to draw that of Jesus Christ.

HOROSCOPE is also used for a scheme or figure of the twelve houses; i. e. the twelve signs of the zodiac, wherein is marked the disposition of the heavens for any given time. Thus we say, to draw a horoscope, construct a horoscope, &c. We call it, more peculiarly, *calculating a nativity*, when the life and fortune of a person are the subject of the prediction; for they draw horoscopes of cities, great enterprises, &c. See HOUSE.

HOROSCOPY. See DIVINATION, n° 2.

HORREA, in Roman antiquity, were public magazines of corn and salt meat, out of which the soldiers were furnished on their march in the military roads of the empire. *Horrea* was also the name which they gave to their granaries.

HORROX (Jeremiah), an eminent English astronomer in the 17th century, was born at Texteth near Liverpool in Lancashire in 1619. He died, to the great loss of that science and of the world, in the 23d year of his age, after he had just finished his *Venus in sole visa*; which, with some other works, were published by Dr Wallis, in quarto.

HORROR, strictly signifies such an excess of fear as makes a person tremble. See FEAR, FRIGHT, and TERROR. In medicine, it denotes a shivering and shaking of the whole body, coming by fits. It is common at the beginning of all fevers, but is particularly remarkable in those of the intermittent kind.

HORROR of a Vacuum, was an imaginary principle among the ancient philosophers, to which they ascribed the ascent of water in pumps, and other similar phenomena, which are now known to be occasioned by the weight of the air.

HORSE, in zoology. See the article EQUUS.

Horses were very rare in Judæa till Solomon's time. Before him we find no horsemen mentioned in the armies of Israel. David having won a great battle against Hadadezer king of Shobah (2 Sam. viii. 4, 5.), took 1700 horses, and lamed all belonging to the chariots of war, reserving only 100 chariots. The judges and princes of Israel used generally to ride on mules or asses. After David's time, horses were more common in the country of Judah, &c. Solomon is the first king of Judah who had a great number of horses, and he kept them rather for pomp than for war; for we do not read that he made any military expeditions. He had, says the scripture (1 Kings iv. 26.) 40,000 stalls of horses for his chariots, and 12,000 horsemen distributed in his fortified places (1 Kings x. 26.) He had his horses from Egypt (*ibid.* ver. 28, 29.); and there was not a fet which did not cost him more than 600 shekels, which make of our money about 90l. Moses had forbidden the king of the Hebrews to keep a great number of horses (Deut. xvii. 16.), lest at any time he should be inclined to carry the people back into Egypt.

We read in the second book of Kings (xxiii. 17.), that Josiah took away the horses which the kings of Judah his predecessors had consecrated to the sun. We know:

Horoscope  
||  
Horfe.



**Horse.** know the sun was worshipped over all the east, and that the horse, the swiftest of tame beasts, was consecrated to this deity, who was represented as riding in a chariot drawn by the most beautiful and swiftest horses in the world, and performing every day his journey from east to west, in order to communicate his light to mankind. Xenophon describes a solemn sacrifice of horses, which was made with ceremony to the sun: they were all the finest steeds, and were led with a white chariot, crowned, and consecrated to the same god. We may believe that the horses which Josiah removed out of the court of the temple, were appointed for the like sacrifices. The rabbins inform us, that these horses were every morning put to the chariots dedicated to the sun, whereof there is mention made in the same book; and that the king, or some of his officers, got up and rode to meet the sun in its rising, as far as from the eastern gate of the temple to the suburbs of Jerusalem. Others are of opinion, that the horses mentioned in the book of kings were of wood, stone, or metal, erected in the temple in honour of the sun: Others, that they were horses which none were permitted to ride or fallen to the yoke, but were free, and left to themselves, like those which Julius Cæsar let loose and set at liberty after his passage of the Rubicon.

Horses were used both amongst the Greeks and Romans in war, but were not originally very numerous; for as each horseman provided his own horse, few would be able to bear the expence. Horses for a considerable time were managed by the voice alone, or by a switch, without bridle, saddle, or stirrups. Their harness was skins of beasts, or sometimes cloth. Both horses and men amongst the Greeks underwent a severe probation before their admission into the cavalry. —Horse-races were common amongst the Greeks and Romans, and the place where they ran or breathed their courfers was called *hippodromus*.

*Management of a Horse upon and after a Journey.* See that his shoes be not too strait, or press his feet, but be exactly shaped; and let him be shod some days before you begin a journey, that they may be settled to his feet.

*Sport,man's Dictionary.* Observe that he is furnished with a bitt proper for him, and by no means too heavy, which may incline him to carry low, or to rest upon the hand when he grows weary, which horsemen call *making use of his fifth leg*.

The mouth of the bitt should rest upon his bars about half a finger's breadth from his tusches, so as not to make him frumple his lips; the curb should rest in the hollow of his beard a little above the chin; and if it gall him, you must defend the place with a piece of buff or other soft leather.

Take notice that the saddle do not rest upon his withers, reins, or back-bone, and that one part of it do not press his back more than another.

Some riders gall a horse's sides below the saddle with their stirrup-leathers, especially if he be lean; to hinder it, you should fix a leather strap between the points of the fore and hind-bows of the saddle, and make the stirrup-leather pass over them.

Begin your journey with short marches, especially if your horse has not been exercised for a long time: suffer him to stale as often as you find him inclined;

and not only so, but invite him to it: but do not excite your mares to stale, because their vigour will be thereby diminished.

It is advisable to ride very softly, for a quarter or half an hour before you arrive at the inn, that the horse not being too warm, nor out of breath, when put into the stable, you may unbridle him: but if your business obliges you to put on sharply, you must then (the weather being warm) let him be walked in a man's hand, that he may cool by degrees; otherwise, if it be very cold, let him be covered with cloths, and walked up and down in some place free from wind; but in case you have not the conveniency of a sheltered walk, stable him forthwith, and let his whole body be rubbed and dried with straw.

Although some people will have their horses legs rubbed down with straw as soon as they are brought into the stable, thinking to supple them by that means; yet it is one of the greatest errors that can be committed, and produces no other effects than to draw down into the legs those humours that are always stirred up by the fatigue of the journey: not that the rubbing of horses legs is to be disallowed; on the contrary, we highly approve of it, only would not have it done at their first arrival, but when they are perfectly cooled.

Being come to your inn, as soon as your horse is partly dried, and ceases to beat in the flanks, let him be unbridled, his bit washed, cleansed, and wiped, and let him eat his hay at pleasure.

If your horse be very dry, and you have not given him water on the road, give him oats washed in good mild ale.

The dust and sand will sometimes so dry the tongues and mouths of horses, that they lose their appetites: in such case, give them bran well moistened with water to cool and refresh their mouths; or wash their mouths and tongues with a wet sponge, to oblige them to eat.

The foregoing directions are to be observed after moderate riding; but if you have rode excessively hard, unsaddle your horse, and scrape off the sweat with a sweating-knife, or scraper, holding it with both hands, and going always with the hair; then rub his head and ears with a large hair-cloth, wipe him also between the fore-legs and hind-legs; in the mean while, his body should be rubbed all over with straw, especially under his belly and beneath the saddle, till he is thoroughly dry.

That done, set on the saddle again, cover him; and if you have a warm place, let him be gently led up and down in it, for a quarter of an hour; but if not, let him dry where he stands.

Or you may unsaddle him immediately; scrape off the sweat; let the ostler take a little vinegar in his mouth, and squirt it into the horse's; then rub his head, between the fore and hind-legs, and his whole body, till he is pretty dry: let him not drink till thoroughly cool and has eaten a few oats; for many, by drinking too soon, have been spoiled. Set the saddle in the sun or by a fire, in order to dry the panels.

When horses are arrived in an inn, a man should, before they are unbridled, lift up their feet, to see whether they want any of their shoes, or if those they have

Horfe.

have do not rest upon their sides; afterwards he should pick and clear them of the earth and gravel, which may be got betwixt their shoes and soles.

If you water them abroad, upon their return from the river cause their feet to be stopped with cow-dung, which will ease the pain therein; and if it be in the evening, let the dung continue in their feet all night, to keep them soft and in good condition: but if your horse have brittle feet, it will be requisite to anoint the fore-feet, at the on-setting of the hoofs, with butter, oil, or hog's-grease, before you water him in the morning, and in dry weather they should be also greased at noon.

Many horses, as soon as unbridled, instead of eating, lay themselves down to rest, by reason of the great pain they have in their feet, so that a man is apt to think them sick: but if he looks to their eyes, he will see they are lively and good; and if he offers them meat as they are lying, they will eat it very willingly; yet if he handles their feet, he will find them extremely hot, which discovers their suffering in that part. You must therefore see if their shoes do not rest upon their soles, which is somewhat difficult to be certainly known without unshoeing them; but if you take off their shoes, then look to the inside of them, and you may perceive that those parts which rest upon the soles are more smooth and shining than the others: in this case you are to pare their feet in those parts, and fix on their shoes again, anointing the hoofs, and stopping the soles with scalding hot black pitch or tar.

After a long day's journey, at night feel your horse's back, if he be pinched, galled, or swelled (if you do not immediately discover it, perhaps you may after supper), there is nothing better than to rub it with good brandy and the white of an egg. If the galls are between the legs, use the same remedy; but if the offler rubs him well between the legs, he will seldom be galled in that part.

In order to preserve horses after travel, take these few useful instructions. When you are arrived from a journey, immediately draw the two heel-nails of the fore-feet; and, if it be a large shoe, then four: two or three days after, you may blood him in the neck, and feed him for 10 or 12 days only with wet bran, without giving him any oats; but keep him well littered.

The reason why you are to draw the heel-nails, is because the heels are apt to swell, and if they are not thus eased, the shoes would press and straiten them too much: it is also advisable to stop them with cow-dung for a while; but do not take the shoes off, nor pare the feet, because the humours are drawn down by that means.

The following bath will be very serviceable for preserving your horse's legs. Take the dung of a cow or ox and make it thin with vinegar, so as to be of the consistence of thick broth; and having added a handful of small salt, rub his fore-legs from the knees, and the hind-legs from the gambrels, chafing them well with and against the hair, that the remedy may sink in and stick to those parts, that they may be all covered over with it. Thus leave the horse till morning, not wetting his legs, but giving him his water that evening in a pail: next morning lead him to the ri-

ver, or wash his legs in well-water, which is very good, and will keep them from swelling.

Horfe.

Those persons, who, to recover their horses feet, make a hole in them, which they fill with moistened cow-dung, and keep it in their fore-feet during the space of a month, do very ill; because, though the continual moisture that issues from the dung occasions the growing of the hoof, yet it dries and shrinks it so excessively when out of that place, that it splits and breaks like glass, and the foot immediately straitens. For it is certain, that cow-dung (contrary to the opinion of many people) spoils a horse's hoof: it does indeed moisten the sole; but it dries up the hoof, which is of a different nature from it. In order, therefore, to recover a horse's feet, instead of cow-dung, fill a hole with blue wet clay, and make him keep his fore-feet in it for a month.

Most horses that are fatigued, or over-rid, and made lean by long journeys, have their flanks altered without being purfy, especially vigorous horses that have worked too violently.

There is no better method to recover them, than to give each of them in the morning half a pound of honey very well mingled with scalded bran; and when they readily eat the half pound, give them the next time a whole one, and afterwards two pounds, every day continuing this course till your horses are empty, and purge kindly with it; but as soon as you perceive that their purging ceases, forbear to give them any more honey.

You may administer powder of liquorice in the scalded bran for a considerable time; and to cool their blood, it will not be improper to let them have three or four glisters.

In case the horse be very lean, it is expedient to give him some wet bran, over and above his proportion of oats; and grass is also extraordinary beneficial, if he be not purfy.

If it be a mare, put her to a horse; and if she never had a foal before, it will enlarge her belly.

Sometimes excessive feeding may do horses more harm than good, by rendering them subject to the farcy. You should therefore be cautious in giving them too great a quantity at a time, and take a little blood from them now and then.

When a horse begins to drink water heartily, it is a certain sign that he will recover in a short time. As to the method of giving him water during a journey, observe the following rules:

All the while you are upon a journey, let your horse drink of the first good water you come to, after seven o'clock in the morning if it be in summer-time, and after nine or ten in winter.

That is accounted good water which is neither too quick and piercing, nor too muddy and stinking.

This is to be done, unless you would have him gallop a long time after drinking; for if so, you must forbear.

Though it is the custom of England to run and gallop horses after drinking, which we call *watering-courses*, to bring them (as they say) into wind; yet, says M. de Solleysel, it is the most pernicious practice that can be imagined for horses, by which many are rendered purfy.

While a horse is drinking, draw up his head five or six times, making him move a little between every draught;



Horse.

Horse.

draught; and notwithstanding he be warm, and sweat very much, yet if he is not quite out of breath, and you have still four or five miles to ride, he will be better after drinking a little, than if he had drank none at all: it is true, indeed, that if the horse is very warm, you should, at coming out of the water, redouble your pace, to make him go at a gentle trot, to warm the water in his belly.

You ought to let him drink after this manner during the whole time of your journey; because, if when you happen to bait he be hot or sweaty, you must not let him drink for a long time, as it would endanger his life; and when his bridle is taken off, his excessive thirst will hinder him from eating, so that he will not offer to touch his meat for an hour or two, which perhaps your occasions will not allow you for a baiting time, and not to have any food will render him unfit for travel.

If you meet with any ford before you come to your inn, ride the horse through it two or three times, but not up to his belly: this will only cleanse his legs; but the coldness of the water will bind up the humours, and prevent them from descending.

If your horse has been very warm, and you have not had the convenience of watering him upon the road, he will, when unbridled, eat but very little; therefore he should have his oats given him washed in ale or beer, or only some of them, if you intend to feed him again after he has drank.

Some are of opinion, that horses are often spoiled by giving them oats before their water; because they say the water makes the oats pass too soon, and out of the stomach undigested. But M. de Solleysel affirms, that though it be the common custom not to do it till after, yet it is proper to feed with oats both before and after, especially if the horse be warm, and has been hard rode; for they will be a great deal the better for it, and in no danger of becoming sick.

Buffon's  
Nat. Hist.

*Breeding of Horses.* When the stallion is chosen, and all the mares intended for him are collected together, there must be another stone-horse, to discover which of the mares are in heat; and, at the same time, contribute to inflame them. All the mares are to be brought successively to this stone-horse; which should also be inflamed, and suffered frequently to neigh. As he is for leaping every one, such as are not in heat keep him off, whilst those which are so suffer him to approach them. But instead of being allowed to satisfy his impulse, he must be led away, and the real stallion substituted in his stead. This trial is necessary for ascertaining the true time of the mare's heat, especially of those which have not yet had a colt; for with regard to such as have recently foaled, the heat usually begins nine days after their delivery; and on that very day they may be led to the stallion to be covered; and nine days after, by the experiment above mentioned, it may be known whether they are still in heat. If they are, they must be covered a second time; and thus successively every ninth day while their heat continues: for when they are impregnated, their heat abates, and in a few days ceases entirely.

But that every thing may be done easily and conveniently, and at the same time with success and advantage, great attention, expence, and precaution are requisite. The stud must be fixed in a good soil,

and in a suitable place, proportioned to the number of mares and stallions intended to be used. This spot must be divided into several parts, inclosed with rails or ditches well fenced; in the part where the pasture is the richest, the mares in fold, and those with colts by their sides, are to be kept. Those which are not impregnated, or have not yet been covered, are to be separated, and kept with the fillies in another close, where the pasture is less rich, that they may not grow too fat, which would obstruct the progress of generation. Lastly, the young stone colts or geldings, are to be kept in the driest part of the fields, and where the ground is most unequal; that by running over the uneven surface, they may acquire a freedom in the motion of their legs and shoulders. This close, where the stone colts are kept, must be very carefully separated from the others, lest the young horses break their bounds, and enervate themselves with the mares. If the tract be so large as to allow of dividing each of these closes into two parts, for putting oxen and horses into them alternately, the pasture will last much longer than if continually eaten by horses; the ox improving the fertility, whereas the horse lessens it. In each of these closes should be a pond; standing water being better than running, which often gripes them: and if there are any trees in the ground, they should be left standing, their shade being very agreeable to the horses in great heats; but all stems or stumps should be grubbed up, and all holes levelled, to prevent accidents. In these pastures your horses should feed during the summer; but in the winter the mares should be kept in the stable and fed with hay. The colts also must be housed, and never suffered to feed abroad in winter, except in very fine weather. Stallions that stand in the stable should be fed more with straw than hay; and moderately exercised till covering time, which generally lasts from the beginning of April to the end of June. But during this season they should have no other exercise, and be plentifully fed, but with the same food as usual. Before the stallion is brought to the mare, he should be dressed, as that will greatly increase his ardour. The mare must also be curried, and have no shoes on her hind feet, some of them being ticklish, and will kick the stallion. A person holds the mare by the halter, and two others lead the stallion by long reins; when he is in a proper situation, another assistant carefully directs the yard, pulling aside the mare's tail, as a single hair might hurt him dangerously. It sometimes happens that the stallion does not complete the work of generation, coming from the mare without making any injection: it should therefore be attentively observed, whether, in the last moments of the copulation, the dock of the stallions tail has a vibrating motion; for such a motion always accompanies the emission of the feminal lymph. If he has performed the act, he must on no consideration be suffered to repeat it; but be lead away directly to the stable, and there kept two days. For, however able a good stallion may be of covering every day during the three months, it is much better to let him be led to a mare only every other day: his produce will be greater, and he himself less exhausted. During the first seven days, let four different mares be successively brought to him; and the ninth day let the first be again brought, and so successively while they continue in heat: but as

fores.

Horse.

soon as the heat of any one is over, a fresh mare is to be put in her place, and covered in her turn every nine days; and as several retain even at the first, second, or third time, it is computed that a stallion, by such management, may, during the three months, cover 15 or 18 mares, and beget 10 or 12 colts. These animals have a very large quantity of the seminal lymph; so that a considerable portion of it is shed during the emission. In the mares likewise is an emission, or rather distillation of the seminal lymph, during the whole time they are horsing; ejecting a viscid whitish lymph, called the *beats*, which cease on conception. This ichor the Greeks called *hippomanes*; and pretended that philtres might be made of it, one remarkable effect of which was, to render a horse frantic with lust. This *hippomanes* is very different from that found in the secundines of the foal, which M. Daubenton first discovered, and has so accurately described its nature, origin, and situation. The ejection of this liquor is the most certain sign of the mare's heat; but it is also known by the inflation of the lower part of the vulva, by her frequent neighings, and attempts to get to the horses. After being covered, nothing more is requisite than to lead her away to the field. The first foal of a mare is never so strongly formed as the succeeding; so that care should be taken to procure for her, the first time, a larger stallion, that the defect of the growth may be compensated by the largeness of the size. Particular regard should also be had to the difference or congruity of the fashion of the stallion and the mare, in order to correct the faults of the one by the perfections of the other: especially never to make any disproportionate copulations, as of a small horse with a large mare, or a large horse with a small mare; as the produce of such copulation would be small, or badly proportioned. It is by gradations that we must endeavour to arrive at natural beauty: for instance, to give to a mare a little too clumsy, a well-made horse and finely shaped; to a small mare, a horse a little higher; to a mare which is faulty in her forehead, a horse with an elegant head and noble chest, &c.

It has been observed, that horses fed in dry and light grounds, produce temperate, swift, and vigorous foals, with muscular legs and a hard hoof; while the same bred in marshes and moist pastures have produced foals with a large heavy head, a thick carcass, clumsy legs, bad hoofs, and broad feet. These differences proceed from the air and food, which is easily understood; but what is more difficult to be accounted for, and still more essential than what we have hitherto observed, is, to be continually crossing the breed to prevent a degeneracy.

In coupling of horses, the colour and size should be suited to each other, the shape contrasted, and the breed crossed by an opposition of climates: but horses and mares foaled in the same stud should never be joined. These are essential articles; but there are others which should by no means be neglected: as that no short-docked mares be suffered in a stud, because from their being unable to keep off the flies, they are much more tormented by them than others which have a long sweeping tail; and their continual agitations from the stings of these insects, occasions a diminution in the quantity

of their milk, and has a great influence on the constitution and size of the colt, which will be vigorous in proportion as its dam is a good nurse. Care must also be taken, that the stud mares be such as have been always brought up in pastures, and never over-worked. Mares which have always been brought up in the stable on dry food, and afterwards turned to grass, do not breed at first: some time is required for accustoming them to this new aliment.

Though the usual season for the heat of mares be from the beginning of April to the end of June, yet it is not uncommon to find some among a large number that are in heat before that time: but it is advisable to let this heat pass over without giving them to the stallion, because they would foal in winter; and the colts, besides the inclemency of the season, would have bad milk for their nourishment. Again, if the mares are not in heat till after the end of June, they should not be covered that season; because the colts being foaled in summer, have not time for acquiring strength sufficient to repel the injuries of the following winter.

Many, instead of bringing the stallion to the mare, turn him loose into the close, where all the mares are brought together; and there leave him to choose such as will stand to him. This is a very advantageous method for the mares: they will always take horse more certainly than in the other; but the stallion, in six weeks, will do himself more damage than in several years by moderate exercise, conducted in the manner we have already mentioned.

When the mares are pregnant, and their belly begins to swell, they must be separated from those that are not, lest they hurt them. They usually go 11 months and some days; and foal standing, whereas most other quadrupeds lie down. Those that cannot foal without great difficulty, must be assisted; the foal must be placed in a proper situation; and sometimes, if dead, drawn out with cords. The head of the colt usually presents itself first, as in all other animals: at its coming out of the matrix, it breaks the secundines or integuments that inclose it, which is accompanied with a great flux of the lymph contained in them; and at the same time one or more solid lumps are discharged, formed by the sediment of the inspissated liquor of the allantoides. This lump, which the ancients called the *hippomanes of the colt*, is so far from being, as they imagined, a mass of flesh adhering to the head of the colt, that it is separated from it by a membrane called *amniois*. As soon as the colt is fallen, the mare licks it, but without touching the *hippomanes*; which points out another error of the ancients, who affirmed that she instantly devours it.

The general custom is to have a mare covered nine days after her foaling, that no time may be lost; but it is certain, that the mare having, by this means, both her present and future foal to nourish, her ability is divided, and she cannot supply both so largely as she might one only. It would therefore be better, in order to have excellent horses, to let the mares be covered only every other year; they would last the longer, and bring foals more certainly: for, in common studs, it is so far from being true that all mares which have been covered bring colts every year, that it is considered

Horse.



*Horse.* as a fortunate circumstance if half or at most two thirds of them foal.

Mares, when pregnant, will admit of copulation; but it is never attended with any superfœtation. They usually breed till they are 14 or 15 years of age; and the most vigorous till they are above 18. Stallions, when well managed, will engender till the age of 20, and even beyond; but it must be observed, that such horses as are soonest made stallions, are also the soonest incapable of generation: thus the large horses, which acquire strength sooner than the slender, and are therefore often used as stallions as soon as they are four years old, are incapable of generation before they are sixteen.

*Gelding of HORSES.* See GELDING.

*Rearing of HORSES.* See COLT.

*Draught-HORSE*, in farming, a sort of coarse-made horse destined for the service of the cart or plough. In the choice of these horses for what is called the *slow draught*, they are to be chosen of an ordinary height; for otherwise, when put into the cart, one draws unequally with the other. The draught-horse should be large bodied and strong loined, and of such a disposition, as rather to be too dull than too brisk, and rather to crave the whip than to draw more than is needful. Mares are the fittest for this use for the farmer, as they will be kept cheap, and not only do the work, but be kept breeding, and give a yearly increase of a foal. They should have a good head, neck, breast, and shoulders; for the rest of the shape, it is not of much consequence. Only, for breeding, the mare should have a large belly; for the more room a foal has in the dam, the better proportioned it will be. Draught-horses should be always kept to that employ. Some put them to the saddle on occasion, but it does them great harm, alters their pace, and spoils them for labour. The draught horse ought to have a large broad head, because horses of this shaped head are less subject than others to diseases of the eyes. The ears should be small, straight and upright; the nostrils large and open, that he may breathe with the more freedom. A horse with a full and bold eye always promises well. On the other hand, a sunk eye and an elevated brow are bad signs. The horse is esteemed fittest for this purpose also, that has a large and round buttock, which neither sinks down nor cuts. He must have a firm and strong tail, and the dock must be thick and well furnished with hair, and placed neither very high nor very low. The legs should be rather flat and broad than round: the roundness of the leg being a fault in a horse destined to labour that will soon ruin him. As to the hinder legs, the thighs should be fleshy and long, and the whole muscle which shows itself on the outside of the thigh should be large and very thick. No country can bring a parallel to the size and strength of our horses destined for the draught. In London there are instances of single horses that are able to draw on a plain, for a small space, the weight of three tons, and which can with ease, and for continuance, draw half that weight. The pack horses of Yorkshire usually carry a burden of 420 lb. over the highest hills of the north, as well as the most level roads: but the most remarkable proof of the strength of our British horses is derived from that of our mill horses; some of which will at one load carry 13 measures, which at

a moderate computation of 70 lb. each, will amount to 910 lb. Nothing is so essential to the health of these serviceable creatures as cleanliness; if they are fed ever so well, and not kept clean, they will be subject to numerous diseases.

The servant who has the care of them ought to be up very early, and to clean the racks and mangers from all filth. The currying of them ought to be carefully performed every morning, but not in the stable, for the dust to fall upon the other horses, as it is too often done. After the horses are dusted, they should daily twist a whisp of straw hard up, and wetting it in water, rub the legs, shoulders and body with it. Many of the diseases of draught-horses, which are not owing to nastiness, are owing to bad water; such as are two raw, too muddy, or too cold, being all improper. If there be any running stream in the neighbourhood, they should always be led to that to water every day in summer, but in winter, well-water is warmish, and is better for them. If there be a necessity of giving them well-water in summer, it must be drawn up some hours before the time, and exposed to the sun-beams in tubs or troughs; marsh-water or that of lowland ditches is worst of all. When the labouring horse has drank his water, he should have his oats given him, and these should be carefully sifted, and the manger dusted first. It is a common practice, as soon as a horse is come in from his work, to rub down his legs with a hard whisp of hay; but the best judges of horses absolutely condemn this, and observe, that this rubbing of the legs after hard labour brings down humours into them, and makes them stiff.

The rubbing itself is wholesome, but the doing it when the creature is hot is the mischief; while a horse is in a sweat it is a great relief and refreshment to him to have his body rubbed down, but when he is cold is the proper time to rub his legs. The racks are to be well supplied with hay, and the horses should be left to rest and eat, about two hours; and then led to water; after this their oats should be given them, and they should then go to work again.

In the evening, when the labour of the day is over, the first thing to be done is to examine the feet, and see if any thing is amiss about the shoes, and what earth or gravel is lodged in the foot, between the shoe and the sole, is to be picked out and some fresh cowdung put in its place, which will cool and refresh the part.

A very material thing for the preservation of all sorts of cattle, but of none so much as draught-horses, is fresh and clean litter.

*HORSE-Chestnut.* See *ÆSCULUS*, and *HIPPOCASTANUM*.

*HORSE Guards.* See *GUARDS*.

*HORSE-Hunting.* See *HUNTER*.

*HORSE Measure* is a rod of box to slide out of a cane, with a square at the end, being divided into hands and inches to measure the height of horses.

*HORSE-Muscle.* See *MYTULUS*.

*Race HORSE.* See *RACING*.

*HORSE-Radish.* See *COCHLEARIA*.

*HORSE-Shoe*, a cover or defence for the sole of a horse's foot. See *FARRIERY*, p. 167.

*HORSE-shoe head*, a disease in infants, wherein the sutures of the skull are too open, or too great a vacancy is left between them; so that the aperture shall not be

*Horse.*

*Horfe.* be totally clofed up, or the cranium in that part not be so hard as the reft for fome years after. This openness is found to be increafed upon the child's catching cold. When the difeafe continues long, it is reputed a fign of weaknefs and fhort life. In this cafe, it is ufual to rub the head now and then with warm rum or brandy, mixed with the white of an egg and palm-oil. Sometimes the diforder arifes from a collection of waters in the head called an *hydrocephalus*.

*Stone-Horfe.* See *STALLION*.  
*HORSE-Tail.* See *EQUISETUM* and *EPHEDRA*.  
*HORSE-Vetch.* See *HIPPOCREPIS*.  
*War-HORSE.* The proper rules for choofing a horfe for fervice in war, are thefe: he fhould be tall in ftature, with a comely head, and out-fwellng forehead. His eye fhould be bright and fparkling, and the white part of it covered by the eye brow. The ears fhould be fmall, thin, fhort, and pricking; or if long, they fhould be moveable with eafe, and well carried. The neck fhould be deep, and the breaft large and fwelling. The ribs bending, the chine broad and ftraight, and the buttocks round and full. The tail fhould be high and broad, neither too thick nor too thin; the thigh fwelling; the leg broad and flat, and the paftern fhort. When fuch a horfe is chofen, he muft be kept high during the time of his teaching, that he may be full of vigour. His food muft be fweet hay, and good clean oats, or two parts of oats and one part of beans or peafe, well dried and hardened. The quantity fhould be half a peck in the morning; and the fame quantity at noon and in the evening. Upon his refting days he is to be drefsed between five and fix in the morning, and watered at feven or eight. In the evening he is to be drefsed at four, and watered about five, and he muft always have provender given him after watering; he muft be littered about eight, and then muft have food given him for all night. The night before he is ridden all his hay is to be taken away about nine o'clock, and he muft have a handful or two of oats about four in the morning: when he has eaten thefe, he is to be turned upon the fnaffle, and rubbed very well with dry cloths; then faddled, and made fit for his exercife. When he has performed this, he is to be brought fweating into the ftable, and rubbed down with dry wifps. When this has been done, the faddle is to be taken off, and he is to be rubbed down with dry cloths; the houfing cloth is then to be laid on; and the faddle being again laid on, he is to be walked gently about till thoroughly cool. After this, he muft ftand without meat two or three hours, then he muft be fed; and in the afternoon he is to be rubbed and drefsed as before, and watered in the ufual manner.

*HORSE Worm,* in natural hiftory, a fpecies of fly-worm called alfo *bott*, produced of eggs depofited by a two-winged fly of the fhape and fize of the humble bee in the intefines of horfes. See *BOTTS*.  
*River-HORSE,* in zoology. See *HIPPOPOTAMUS*.  
*HORSE* is alfo ufed in the military language, to exprefs the cavalry; or the body of foldiers who ferve on horfeback.

The horfe includes horfe guards, horfe grenadiers, and troopers. Dragoons are alfo frequently comprehended under this name, though they fight on foot: of thefe there are now 18 regiments; befides three re-

giments of dragoon-guards raifed in 1685. See *GRAND NADIER*, *DRAGOONS*, and *GUARDS*.

*Master of the HORSE.* See *MASTER*.

*Light-HORSE,* are regiments of cavalry, mounted on light fwift horfes, whose men are fmall and lightly accoutred. They were firft raifed in 1757. The denomination arofe hence, that anciently they were lightly armed, in comparifon of the royal guards, which were armed at all points.

*Hungarian HORSE.* See *HUSSARS*.

*HORSE* is alfo a term ufed in various arts and manufactories, for fomething that helps to fustain their work from the ground, for the more commodious working at it.

The horfe ufed by tanners and fkinners, alfo called the *leg*, is a piece of wood cut hollow and roundifh, four or five feet long, and placed aflope; upon which they pare their fkins to get off the dirt, hair, fleft, &c.

*HORSE* is alfo ufed in carpentry, for a piece of wood jointed acrofs two other perpendicular ones, to fustain the boards, planks, &c. which make bridges over fmall rivers; and on divers other occafions.

*HORSE*, in fea language, is the name of a rope reaching from the middle of a yard to its extremity, or what is called the *yard-arm*, and depending about two or three feet under the yard, for the failors to tread upon whilst they are loofing, reefing, or furling the fails, rigging out the fludding-fail booms, &c. In order, therefore, to keep the horfe more parallel to the yard, it is ufually fufpended to it at proper diftances, by certain ropes called ftirrups, which hang about two feet under the yard, having an eye in their lower ends through which the horfe paffes.

*HORSE* is alfo a thick rope, extended in a perpendicular direction near the fore or after-fide of a maff, for the purpofe of hoifting or extending fome fail upon it. When it is fixed before a maff, it is calculated for the ufe of a fail called the *square-fail*, whose yard being attached to the horfe, by means of a traveller or bull's eye, which fides up and down occafionally, is retained in a fteady pofition; either when the fail is fet, or whilst it is hoifting or lowering. When the horfe is placed abaft or behind a maff, it is intended for the try-fail of a fnow, and is accordingly very rarely fixed in this pofition, except in thofe floops of war which occafionally affume the form of fnows, in order to deceive the enemy.

*HORSE* is alfo a cant name introduced into the management of lotteries, for the chance or benefit of a ticket or number for one or more days, upon condition, if it be drawn a prize within the time covenanted for, of returning to the feller an undrawn ticket.—To determine the value of a horfe; multiply the amount of the prizes in the lottery by the time the horfe is hired for; and from the product fubtract the amount of the number of prizes by the value of an undrawn ticket into the time of the horfe: the remainder being divided by the number of tickets into the whole time of drawing, the quotient is the value of the horfe. See *LOTTERY*.

*HORSE-Bread.* See *BREAD*.

*HORSE-Dung,* in gardening, is of great ufe in making hot-beds, for the raifing all forts of early crops; as fallading, cucumbers, melons, afparagus, &c. for which



**Horse.** which purposes no other kinds of dung will do so well. Horse dung ferments the strongest; and if mixed with litter and sea-coal ashes in a due proportion, will continue its heat much longer than any other sort of dung whatsoever: and afterward, when rotted, becomes an excellent manure for most sorts of land; more especially for such as are of a cold nature. For stiff clayey land, horse dung mixed with sea-coal ashes, and the cleansing of streets, will cause the parts to separate much sooner than any other compost: so that where it can be obtained in plenty, it is always to be recommended for such lands. See DUNG.

**Animated Horse-Hairs**, a term used to express a sort of long and slender water-worm, of a blackish colour, and so much resembling a horse-hair, that it is generally by the vulgar supposed to be the hair fallen from a horse's mane into the water as he drinks, and there animated by some strange power. Dr Lister has at large confuted this absurd opinion in the Philosophical Transactions.

**Horse-Hair Worms.** See AMPHIBIENA.

**Horse-Hoing Husbandry.** See AGRICULTURE, n<sup>o</sup> 218.

**Horse.**

## H O R S E M A N S H I P;

Or, The Art of Riding, and of Training and Managing, HORSES.

**Breaking of Horses.** **SECT. I.** *The Method of preparing Horses to be mounted.*

**T**HOUGH all horses are generally bought at an age when they have already been backed, they should be begun and prepared for the rider with the same care, gentleness, and caution, as if they had never been handled or backed, in order to prevent accidents, which might else arise from skittishness or other causes: and as it is proper that they should be taught the figure of the ground they are to go upon when they are at first mounted, they should be previously trotted in a *longe* on circles, without any one upon them.

**Earl of Pembroke's Directions.** The manner of doing this is as follows: Put an easy *cavesson* upon the horse's nose, and make him go forwards round you, standing quiet and holding the *longe*; and let another man, if you find it necessary, follow him with a whip. All this must be done very gently, and but a little at a time: for more horses are spoiled by overmuch work, than by any other treatment whatever; and that by very contrary effects; for sometimes it drives them into vice, madness, and despair, and often stupifies and totally dispirits them.

The first obedience required in a horse is going forwards; till he perform this duty freely, never even think of making him rein back, which would inevitably make him restive: as soon as he goes forwards readily, stop and caress him. You must remember in this, and likewise in every other exercise, to use him to go equally well to the right and left; and when he obeys, caress him and dismiss him immediately. If a horse that is very young takes fright and stands still, lead on another horse before him; which probably will induce him instantly to follow. Put a snaffle in his mouth; and when he goes freely, saddle him, girth him at first very loose. Let the cord, which you hold, be long and loose; but not so much so as to endanger the horse's entangling his legs in it. It must be observed, that small circles, in the beginning, would constrain the horse too much, and put him upon defending himself. No bend must be required at first: never suffer him to gallop false; but whenever he attempts it, stop him without delay, and then set him off afresh. If he gallops of his own accord, and true, permit him to continue it; but if he does it not volun-

tarily, do not demand it of him at first. Should he fly and jump, shake the cord gently upon his nose without jerking it, and he will fall into his trot again. If he stands still, plunges, or rears, let the man who holds the whip make a noise with it; but never touch him till it be absolutely necessary to make him go on. When you change hands, stop and caress him, and entice him by fair means to come up to you: for by presenting yourself, as some do, on a sudden before horses, and frightening them to the other side, you run a great risk of giving them a shyness. If he keeps his head too low, shake the *cavesson* to make him raise it; and in whatever the horse does, whether he walks, trots, or gallops, let it be a constant rule, that the motion be determined, and really such as is intended, without the least shuffling, pacing, or any other irregular gait.

**Of placing the Riders.**

**SECT. II** *The Method of placing the Rider and rendering him firm on Horseback, with some occasional Instructions for Riders and the Horses.*

It is necessary that the greatest attention, and the same gentleness that is used in teaching the horses, be observed likewise in teaching the rider, especially at the beginning. Every method and art must be practised to create and preserve, both in man and horse, all possible feeling and sensibility; contrary to the usage of most riding-masters who seem industriously to labour at abolishing these principles both in the one and the other. As so many essential points depend upon the manner in which a man is at first placed on horseback, it ought to be considered and attended to with the strictest care and exactness.

The absurdity of putting a man, who perhaps has never before been upon a horse, on a rough trotting horse, on which he is obliged to stick with all the force of his arms and legs, is too obvious to need mentioning. This rough work, all at once, is plainly as detrimental at first, as it is excellent afterwards in proper time. No man can be either well or firmly seated on horseback, unless he be master of the balance of his body, quite unconstrained, with a full possession of himself, and at his ease; none of which requisites can he enjoy, if his attention be otherwise engaged; as it must wholly be in a raw, unsupplied, and un-

Of placing  
the Rider.

prepared lad, who is put at once upon a rough horse; in such a distressful state, he is forced to keep himself on at any rate, by holding to the bridle (at the expense of the sensibility both of his own hand and the horse's mouth), and by clinging with his legs, in danger of his life, and to the certain depravation of a right feeling in the horse.

The first time a man is put on horseback, it ought to be upon a very gentle one. He never should be made to trot, till he is quite easy in the walk; nor gallop, till he is able to trot properly. The same must be observed in regard to horses; they should never be made to trot till they are obedient, and their mouths are well formed on a walk, nor be made to gallop, till the same be effected on a trot. When he is arrived at such a degree of firmness in his seat, the more he trots, and the more he rides rough horses, the better. This is not only the best method, but also the easiest and the shortest: by it a man is soon made sufficiently an horseman for a soldier: but by the other detestable methods that are commonly used, a man, instead of improving, contracts all sorts of bad habits, and rides worse and worse every day; the horse too becomes daily more and more unfit for use. In proceeding according to the manner proposed, a man is rendered firm and easy upon the horse, both his own and the horse's sensibility is preserved, and each in a situation fit to receive and practise all lessons effectually.

Among the various methods that are used of placing people on horseback, few are directed by reason. Before you let the man mount, teach him to know, and always to examine, if the curb be well placed, (that is, when the horse has a bit in his mouth, which at first he should not; but only a snaffle, till the rider is firm in his seat, and the horse also somewhat taught): likewise to know if the nose-band be properly tight; the throat-band loose; and the mouth-piece neither too high nor too low in the horse's mouth, but rightly put so as not to wrinkle the skin nor to hang lax; the girths drawn moderately, but not too tight; and the crupper and the breast-plate properly adjusted. A very good and careful hand may venture on a bit at first, and succeed with it full as well as by beginning with a snaffle alone; only colts, indeed, it is better, in all schools whatsoever, to avoid any pressure on the bars just at first, which a curb, though ever so delicately used, must in some degree occasion. When the bridle, &c. have been well looked to, let the man approach the horse gently near the shoulder; then taking the reins and a handful of the mane in his left hand, let him put his foot softly in the left stirrup, by pulling it towards him, lest he touch the horse with his toe; then raising himself up, let him rest a moment on it with his body upright, but not stiff; and after that, passing his right leg clear over the saddle without rubbing against any thing, let him seat himself gently down. He must be cautious not to take the reins too short, for fear of making the horse rear, run, or fall back, or throw up his head; but let him hold them of an equal length, neither tight nor slack, and with the little finger betwixt them. It is fit that horses should be accustomed to stand still to be mounted, and not to stir till the rider pleases. All soldiers should be in-

structed to mount and dismount equally well on both sides, which may be of great use in times of hurry and confusion. Then place the man in his saddle, with his body rather back, and his head held up with ease, without stiffness; seated neither forwards, nor very backwards; with the breast pushed out a little, and the lower part of the body likewise a little forwards; the thighs and legs turned in without constraint, and the feet in a straight line, neither turned in nor out. By this position, the natural weight of the thighs has a proper and sufficient pressure of itself, and the legs are in readiness to act when called upon: they must hang down easy and naturally; and be so placed, as not to be wriggling about, touching, and tickling, the horse's sides, but always near them in case they should be wanted, as well as the heels.

The body must be carefully kept easy and firm, and without any rocking when in motion; which is a bad habit very easily contracted, especially in galloping. The left elbow must be gently leant against the body, a little forwards: unless it be so rested, the hand cannot be steady, but will always be checking, and consequently have pernicious effects on the horse's mouth. And the hand ought to be of equal height with the elbow; if it were lower, it would constrain and confine the motion of the horse's shoulders: but, as the mouths of horses are different, the place of the hand also must occasionally differ: a leaning, low, heavy, fore-hand, requires a high hand; and a horse that pokes out his nose, a low one. The right-hand arm must be placed in symmetry with the left; only let the right hand be a little forwarder or backwarder, higher or lower, as occasions may require, in order that both hands may be free; both arms must be a little bent at the elbow, to prevent stiffness.

A soldier's right hand should be kept unemployed in riding; it carries the sword, which is a sufficient business for it.

There remains one farther observation, that ought not to be omitted, about the hand, that it must be kept clear of the body; *i. e.* about two inches and a half forwards from it, with the nails turned opposite to the belly, and the wrist a little rounded with ease; a position not less graceful than ready for slackening, tightening, and moving the reins from one side to the other, as may be found necessary.

When the men are well placed, the more rough trotting they have without stirrups the better; but with a strict care always, that their position be preserved very exactly. In all cases, great care must be taken to hinder their clinging with their legs: in short, no sticking by hands or legs is ever to be allowed of at any time. If the motion of the horse be too rough, slacken it, till the rider grows by degrees more firm; and when he is quite firm and easy on his horse in every kind of motion, stirrups may be given him; but he must never leave off trotting often without any.

The stirrups must be neither short nor long; but of such a length, that when the rider, being well placed, puts his feet into them (about one third of the length of each foot from the point of it), the points may be between two and three inches higher than the heels. The rider must not bear upon his stirrups, but only

Of placing  
the Rider.



Instructions  
concerning  
both Man  
and Horse.

let the natural weight of his legs rest on them : For if he bears upon them he would be raised above and out of his saddle ; which should never be, except in charging sword in hand, with the body inclined forwards at the very instant of attacking. Spurs may be given as soon as the rider is grown familiar with stirrups ; or even long before, if his legs are well placed.

A hand should always be firm, but delicate : a horse's mouth should never be surprised by any sudden transition of it, either from slack to tight, or from tight to slack. Every thing in horsemanship must be effected by degrees, but at the same time with spirit and resolution. That hand which, by giving and taking properly, gains its point with the least force, is the best ; and the horse's mouth, under this same hand's directions, will also consequently be the best, supposing equal advantages in both from nature. This principle of gentleness should be observed upon all occasions in every branch of horsemanship. Sometimes the right hand may be necessary, upon some troublesome horses, to assist the left : but the seldomer this is done, the better ; especially in a soldier, who has a sword to carry, and to make use of.

The snaffle must on all occasions be uppermost ; that is to say, the reins of it must be above those of the bridle, whether the snaffle or the bit be used separately, or whether they be both used together. When the rider knows enough, and the horse is sufficiently prepared and settled to begin any work towards suppling, one rein must be shortened according to the side worked to ; but it must never be so much shortened, as to make the whole strength rest on that rein alone : for, not to mention that the work would be false and bad, one side of the horse's mouth would by that means be always deadened ; whereas, on the contrary, it should always be kept fresh by its own play, and by the help of the opposite rein's acting delicately in a somewhat smaller degree of tension ; the joint effect of which produces in a horse's mouth the proper, gentle, and easy, degree of *appui* or bearing.

A coward and a madman make alike bad riders, and are both alike discovered and confounded by the superior sense of the creature they are mounted upon, who is equally spoiled by both, though in very different ways. The coward, by suffering the animal to have his own way, not only confirms him in his bad habits, but creates new ones in him : and the madman, by false and violent motions and corrections, drives the horse, through despair, into every bad and vicious trick that rage can suggest.

It is very requisite in horsemanship, that the hand and legs should act in correspondence with each other in every thing ; the latter always subservient and assistant to the former. Upon circles, in walking, trotting, or galloping, the outward leg is the only one to be used, and that only for a moment at a time, in order to set off the horse true, or put him right if he be false ; and as soon as that is done, it must be taken away again immediately : but if the horse be lazy, or otherwise retains himself, both legs must be used and pressed to his sides at the same time together. The less the legs are used in general, the better. Very delicate

Instructions  
concerning  
both Man  
and Horse.

good riders, with horses they have dressed themselves, will scarcely ever want their help. By the term *outward* is understood the side which is more remote from the centre ; and by *inward* is meant the side next to the centre. In reining back, the rider should be careful not to use his legs, unless the horse backeth on his shoulders ; in which case they must be both applied gently at the same time, and correspond with the hand. If the horse refuse to back at all, the rider's legs must be gently approached, till the horse lifts up a leg, as if to go forwards ; at which time, when that leg is in the air, the rein of the same side with that leg which is lifted up, will easily bring that same leg backwards, and accordingly oblige the horse to back ; but if the horse offers to rear, the legs must be instantly removed away. The inward rein must be tighter on circles, so that the horse may bend and look inwards ; and the outward one crossed over a little towards it ; and both held in the left hand.

Let the man and horse begin on very slow motions, that they may have time to understand and reflect on what is taught them ; and in proportion as the effects of the reins are better comprehended, and the manner of working becomes more familiar, the quickness of motion must be increased. Every rider must learn to feel, without the help of the eye, when a horse goes false, and remedy the fault accordingly : this is an intelligence, which nothing but practice, application, and attention, can give, in the beginning on slow motions. A horse may not only gallop false, but also trot and walk false. If a horse gallops false, that is to say, if going to the right he leads with the left leg, or if going to the left he leads with the right ; or in case he is disunited, *i. e.* if he leads with the opposite leg behind to that which he leads with before ; stop him immediately, and put him off again properly. The method of effecting this, is by approaching your outward leg, and putting your hand outwards ; still keeping the inward rein the shorter, and the horse's head inwards, if possible ; and if he should still resist, then bend and pull his head outwards also ; but replace it again, bent properly inwards, the moment he goes off true. A horse is said to be disunited to the right, when going to the right, and consequently leading with the right leg before, he leads with the left behind ; and is said to be disunited to the left, when going to the left, and consequently leading with the left leg before, he leads with the right behind. A horse may at the same time be both false and disunited ; in correcting both which faults, the same method must be used. He is both false and disunited to the right, when in going to the right he leads with the left leg before, and the right behind ; notwithstanding that hinder leg be with propriety more forward under his belly than the left, because the horse is working to the right : And he is false and disunited to the left, when in going to the left he leads with the right leg before and the left behind ; notwithstanding, as above, that hinder leg be with propriety more forward under his belly than the right, because the horse is working to the left.

In teaching men a right seat on horseback, the greatest attention must be given to prevent stiffness, and sticking by force in any manner upon any occasion ;



Of suppling  
Horses

tion: stiffness disgraces every right work; and sticking serves only to throw a man (when displaced) a great distance from his horse by the spring he must go off with: whereas, by a proper equilibrating position of the body, and by the natural weight only of the thighs, he cannot but be firm and secure in his seat.

As the men become more firm, and the horses more supple, it is proper to make the circles less; but not too much so, for fear of throwing the horses forwards upon their shoulders.

Some horses, when first the bit is put into their mouths, if great care be not taken, will put their heads very low. With such horses, raise your right hand with the *bridoon* in it, and play at the same time with the bit in the left hand, giving and taking.

On circles, the rider must lean his body inwards; unless great attention be given to make him do it, he will be perpetually losing his seat outwards. It is scarce possible for him to be displaced, if he leans his body properly inwards.

SECT. III. *The Method of suppling Horses with Men upon them, by the ÉPAULE en dedans, &c. with and without a Longe, on Circles and on straight Lines.*

WHEN a horse is well prepared and settled in all his motions, and the rider firm, it will be proper then to proceed on towards a farther suppling and teaching of both.

In setting out upon this new work, begin by bringing the horse's head a little more inwards than before, pulling the inward rein gently to you by degrees. When this is done, try to gain a little on the shoulders, by keeping the inward rein the shorter, as before, and the outward one crossed over towards the inward one. The intention of these operations is this: The inward rein serves to bring in the head, and procures the bend; whilst the outward one, that is a little crossed, tends to make that bend perpendicular, and as it should be, that is to say, to reduce the nose and the forehead to be in a perpendicular line with each other: it also serves, if put forwards, as well as also crossed, to put the horse forwards, if found necessary; which is often requisite, many horses being apt in this and other works rather to lose their ground backwards than otherwise, when they should rather advance; if the nose were drawn in towards the breast beyond the perpendicular, it would confine the motion of the shoulders, and have other bad effects. All other bends, besides what are above specified, are false. The outward rein, being crossed, not in a forward sense, but rather a little backwards, serves also to prevent the outward shoulder from getting too forwards, and makes it approach the inward one; which facilitates the inward leg's crossing over the outward one, which is the motion that so admirably supple the shoulders. Care must be taken, that the inward leg pass over the outward one, without touching it: this inward leg's crossing over must be helped also by the inward rein, which you must cross towards and over the outward rein every time the outward leg comes to the ground, in order to lift and help the inward leg over it: at any other time, but just when the outward leg comes to the ground, it would be wrong to cross the inward

rein, or to attempt to lift up the inward leg by it; nay, it would be demanding an absolute impossibility, and lugging about the reins and horse to no purpose: because in this case, a very great part of the horse's weight resting then upon that leg, would render such an attempt not only fruitless, but also prejudicial to the sensibility of the mouth, and probably oblige him to defend himself; and, moreover, it would put the horse under a necessity of straddling before, and also of leading with the wrong leg, without being productive of any suppling motion whatsoever.

When the horse is thus far familiarly accustomed to what you have required of him, then proceed to effect by degrees the same crossing in his hinder legs. By bringing in the fore-legs more, you will of course engage the hinder ones in the same work: if they resist, the rider must bring both reins more inwards; and, if necessary, put back also, and approach his inward leg to the horse; and if the horse throws out his croup too far, the rider must bring both reins outwards, and, if absolutely necessary, he must also make use of his outward leg, in order to replace the horse properly: observing that the croup should always be considerably behind the shoulders, which in all actions must go first, and the moment that the horse obeys, the rider must put his hand and leg again in their usual position.

Nothing is more ungraceful in itself, more detrimental to a man's seat, or more destructive of the sensibility of a horse's sides, than a continual wriggling unfettedness in a horseman's legs, which prevents the horse from ever going a moment together true, steady, or determined.

A horse should never be turned, without first moving: a step forwards: and when it is doing, the rider must not lift his elbow, and displace himself; a motion only of the hand from the one side to the other being sufficient for that purpose. It must also be a constant rule, never to suffer a horse to be stopped, mounted, or dismounted, but when he is well placed. The slower the motions are when a man or horse is taught any thing, the better.

At first, the figures worked upon must be great, and afterwards made less by degrees, according to the improvement which the man and horse make; and the cadenced pace also, which they work in, must be accordingly augmented. The changes from one side to the other, must be in a bold determined trot, and at first quite straight forwards, without demanding any side-motion on two *pisles*, which is very necessary to require afterwards when the horse is sufficiently suppled. By two *pisles* is meant, when the fore-parts and hinder parts do not follow, but describe two different lines.

In the beginning, a *longe* is useful on circles, and also on straight lines, to help both the rider and the horse; but afterwards, when they are grown more intelligent, they should go alone. At the end of the lesson, rein back; then put the horse, by a little at a time, forwards, by approaching both legs gently to his sides, and playing with the bridle: if he rears, push him out immediately into a full trot. Shaking the *caresson* on the horse's nose, and also putting one's self before him and rather near to him, will generally make him back, though he otherwise refuse to do it: and moreover a slight use and approaching of the rider's legs,

Directions  
for Men  
and Horses



Of Head to the Wall, &c.  
 legs, will sometimes be necessary in backing, in order to prevent the horse from doing it too much upon his shoulders; but the pressure of the legs ought to be very small, and taken quite away the moment that he puts himself enough upon his haunches. If the horse does not back upon a straight line properly, the rider must not be permitted to have recourse immediately to his leg, and so distort himself by it; but first try, if crossing over his hand and reins to which ever side may be necessary, will not be alone sufficient: which most frequently it will; if not, then employ the leg.

After a horse is well prepared and settled, and goes freely on in all his several paces, he ought to be in all his works kept, to a proper degree, upon his haunches, with his hinder legs well placed under him; whereby he will be always pleasant to himself and his rider, will be light in hand, and ready to execute whatever may be demanded of him, with facility, vigour, and quickness.

The common method that is used, of forcing a horse sidewise, is a most glaring absurdity, and very hurtful to the animal in its consequences; for instead of suppling him, it obliges him to stiffen and defend himself, and often makes a creature that is naturally benevolent, restive, frightened, and vicious.

For horses, who have very long and high fore-hands, and who poke out their noses, a running snaffle is of excellent use; but for such as bore and keep their heads low, a common one is preferable; though any horse's head indeed may be kept up also with a running one, by the rider's keeping his hands very high and forwards: but whenever either is used alone without a bridle upon horses that carry their heads low and that bore, it must be sawed about from one side to the other.

This lesson of the *epaule en dedans* should be taught to such people as are likely to become useful in helping to teach men and to break horses; and the more of such that can be found the better: none others should ever be suffered upon any occasion to let their horses look any way besides the way they are going. But all horses whatever, as likewise all men who are designed for the teaching others, must go thoroughly and perfectly through this excellent lesson, under the directions of intelligent instructors, and often practise it too afterwards; and when that is done, proceed to and be finished by the lessons of head and tail to the wall.

#### SECT. IV. Of the Head to the Wall, and of the Croup to the Wall.

THIS lesson should be practised immediately after that of the *epaule en dedans*, in order to place the horse properly the way he goes; &c. The difference between the head to the wall, and the croup to the wall, consists in this: in the former, the fore parts are more remote from the centre, and go over more ground; in the latter, the hinder parts are more remote from the centre, and consequently go over more ground: in both, as likewise in all other lessons, the shoulders must go first. In riding-horses, the head to the wall is the easier lesson of the two at first, the line to be worked upon being marked by the wall, not far from his head.

Of Head to the Wall, &c.  
 The motion of the legs to the right, is the same as that of the *epaule en dedans* to the left, and so *vice versa*; but the head is always bent and turned differently: in the *epaule en dedans*, the horse looks the contrary way to that which he goes; in this, he looks the way he is going.

In the beginning, very little bend must be required; too much at once would astonish the horse, and make him defend himself: it is to be augmented by degrees. If the horse absolutely refuses to obey, it is a sign that either he or his rider has not been sufficiently prepared by previous lessons. It may happen, that weakness or a hurt in some part of the body, or sometimes temper, though seldom, may be the cause of the horse's defending himself: it is the rider's business to find out from whence the obstacle arises; and if he finds it to be from the first mentioned cause, the previous lessons must be resumed again for some time; if from the second, proper remedies must be applied; and if from the last cause, when all fair means that can be tried have failed, proper corrections with coolness and judgment must be used.

In practising this lesson to the right, bend the horse to the right with the right rein; helping the left leg over the right (at the time when the right leg is just come to the ground), with the left rein crossed towards the right, and keeping the right shoulder back with the right rein towards your body, in order to facilitate the left leg's crossing over the right; and so likewise *vice versa* to the left, each rein helping the other by their properly mixed effects. In working to the right, the rider's left leg helps the hinder-parts on to the right, and his right leg stops them if they get too forwards; and so *vice versa* to the left: but neither ought to be used, till the hand being employed in a proper manner has failed, or finds that a greater force is necessary to bring about what is required than it can effect alone: for the legs should not only be corresponding with, but also subservient to, the hand; and all unnecessary aids, as well as all force, ought always to be avoided as much as possible.

In the execution of all lessons, the equilibrium of the rider's body is of great use to the horse: it ought always to go with and accompany every motion of the animal; when to the right, to the right; and when to the left, to the left.

Upon all horses, in every lesson and action, it must be observed, that there is no horse but has his own peculiar appui or degree of bearing, and also a sensibility of mouth, as likewise a rate of his own, which it is absolutely necessary for the rider to discover and make himself acquainted with. A bad rider always takes off at least the delicacy of both, if not absolutely destroys it. The horse will inform his rider when he has got his proper bearing in the mouth, by playing pleasantly and steadily with his bit, and by the spray about his chaps. A delicate and good hand will not only always preserve a light appui, or bearing, in its sensibility; but also of a heavy one, whether naturally so or acquired, make a light one. The lighter this appui can be made, the better; provided that the rider's hand corresponds with it; if it does not, the more the horse is properly prepared, so much the worse. Instances of this inconvenience of the best of appui,



To make  
Horses  
stand Fire,  
&c.

appuis, when the rider is not equally taught with the horse, may be seen every day in some gentlemen, who try to get their horses *bitted* as they call it, without being suitably prepared themselves for riding them: the consequence of which is, that they ride in danger of breaking their necks; till at length, after much hauling about, and by the joint insensibility and ignorance of themselves and their grooms, the poor animals gradually become mere senseless unfeeling posts; and thereby grow, what they call, *settled*. When the proper appui is found, and made of course as light as possible, it must not be kept duly fixed without any variation, but be played with; otherwise one equally-continued tension of reins would render both the rider's hand and the horse's mouth very dull. The slightest and frequent giving and taking is therefore necessary to keep both perfect.

Whatever pace or degree of quickness you work in, (be it ever so fast, or ever so slow), it must be cadenced; time is as necessary for an horseman as for a musician.

This lesson of the head and of the tail to the wall, must be taught every soldier: scarce any manœuvre can be well performed without it. In closing and opening of files, it is almost every moment wanted.

#### SECT. V. *The Method of making Horses stand Fire, Noises, Alarms, Signals, &c.*

IN order to make horses stand fire, the sound of drums, and all sorts of different noises, you must use them to it by degrees in the stable at feeding-time; and instead of being frightened at it, they will soon come to like it as a signal for eating.

With regard to such horses as are afraid of burning objects, begin by keeping them still at a certain distance from some lighted straw: caress the horse; and in proportion as his fright diminishes, approach gradually the burning straw very gently, and increase the size of it. By this means he will very quickly be brought to be so familiar with it, as to walk undaunted even through it.

As to horses that are apt to lie down in the water, if animating them, and attacking them vigorously, should fail of the desired effect, then break a straw-bottle full of water upon their heads, and let the water run into their ears, which is a thing they apprehend very much.

All troop-horses must be taught to stand quiet and still when they are shot off from, to stop the moment you present, and not to move after firing till they are required to do it; this lesson ought especially to be observed in light troops: in short, the horses must be taught to be so cool and undisturbed, as to suffer the rider to act upon him with the same freedom as if he was on foot. Patience, coolness, and temper, are the only means requisite for accomplishing this end. Begin by walking the horse gently, then stop and keep him from stirring for some time, so as to accustom him by degrees not to have the least idea of moving without orders: if he does, then back him; and when you stop him, and he is quite still, leave the reins quite loose.

To use a horse to fire-arms, first put a pistol or a carbine in the manger with his feed; then use him to the sound of the lock and the pan; after which,

when you are upon him, show the piece to him, presenting it forwards, sometimes on one side, sometimes on the other: when he is thus far reconciled, proceed to flash in the pan; after which, put a small charge into the piece, and so continue augmenting it by degrees to the quantity which is commonly used: if he seems uneasy, walk him forward a few steps slowly; and then stop, back, and caress him. Horses are often also disquieted and unsteady at the flash, and drawing, and returning of swords; all which they must be familiarized to by little and little, by frequency and gentleness.

It is very expedient for all cavalry in general, but particularly for light cavalry, that their horses should be very ready and expert in leaping over ditches, hedges, gates, &c. The leaps, of whatever sort they are, which the horses are brought to in the beginning, ought to be very small ones; the riders must keep their bodies back, raise their hands a little in order to help the fore-parts of the horse up, and be very attentive to their equilibrium. It is best to begin at a low bar covered with furze, which pricking the horse's legs, if he does not raise himself sufficiently, prevents his contracting a sluggish and dangerous habit of touching, as he goes over, which any thing yielding and not pricking would give him a custom of doing. Let the ditches you first bring horses to be narrow; and in this, as in every thing else, let the increase be made by degrees. Accustom them to come up to every thing which they are to leap over, and to stand coolly at it for some time; and then to raise themselves gently up in order to form to themselves an idea of the distance. When they leap well standing, then use them to walk gently up to the leap, and to go over it without first halting at it; and after that practice is familiar to them, repeat the like in a gentle trot, and so by degrees faster and faster, till at length it is as familiar to them to leap flying on a full gallop as any other way: all which is to be acquired with great facility by calm and soft means, without any hurry.

As horses are naturally apt to be frightened at the sight and smell of dead horses, it is advisable to habituate them to walk over and leap over carcases of dead horses: and as they are particularly terrified at this sight, the greater gentleness ought consequently to be used.

Horses should also be accustomed to swim, which often may be necessary upon service; and if the men and horses both are not used to it, both may be frequently liable to perish in the water. A very small portion of strength is sufficient to guide a horse, anywhere indeed, but particularly in the water, where they must be permitted to have their heads, and be no-ways constrained in any shape.

The unreasonable rage in Britain of cutting off all extremities from horses, is in all cases a very pernicious custom. It is particularly so in regard to a troop-horse's tail. It is almost incredible, how much they suffer at the picket for want of it: constantly fretting, and sweating, kicking about and laming one another, tormented, and flung off their meat, miserable, and helpless; whilst other horses, with their tails on, brush off all flies, are cool and at their ease, and mend daily; whilst the docked ones grow every hour more and more out of condition.

To make  
Horses  
stand Fire,  
&c.



Of reining  
back, &c.

SECT. VI. *The Method of reining back,—and of moving forwards immediately after,—of Piafing,—of Pillars, &c.*

NEVER finish your work by reining back with horses that have any disposition towards retaining themselves; but always move them forwards, and a little upon the haunches also, after it, before you dismount, (unless they retain themselves very much indeed, in which case nothing at all must be demanded from the haunches). This lesson of reining back, and piafing, is excellent to conclude with, and puts an horse well and properly on the haunches: It may be done, according as horses are more or less suppled, either going forwards, backing, or in the same place: if it is done well advancing, or at most on the same spot, it is full sufficient for a soldier's horse: For to piaf in backing, is rather too much to be expected in the hurry which cannot but attend such numbers both of men and horses as must be taught together in regiments. This lesson must never be attempted at all, till horses are very well suppled, and somewhat accustomed to be put together; otherwise it will have very bad consequences, and create restiveness. If they refuse to back, and stand motionless, the rider's legs must be approached with the greatest gentleness to the horse's sides; at the same time that the hand is acting on the reins to solicit the horse's backing. This seldom fails of procuring the desired effect, by raising one of the horse's fore-legs, which being in the air, has no weight upon it, and is consequently very easily brought backwards by a small degree of tension in the reins. When this lesson is well performed, it is very noble and useful, and has a pleasing air; it is an excellent one to begin teaching scholars with.

The lesson is particularly serviceable in the pillars, for placing scholars well at first. Very few regimental riding-houses have pillars, and it is fortunate they have not: for though, when properly made use of with skill, they are one of the greatest and best discoveries in horsemanship; they must be allowed to be very dangerous and pernicious, when they are not under the direction of a very knowing person.

SECT. VII. *The Method of curing Restivenesses, Vices, Defences, Starting, &c.*

WHENEVER a horse makes resistance, one ought, before remedy or correction is thought of, to examine very minutely all the tackle about him, if any thing hurts or tickles him, whether he has any natural or accidental weakness, or in short any the least impediment in any part. For want of this precaution, many fatal disasters happen: the poor dumb animal is frequently accused falsely of being restive and vicious; is used ill without reason; and, being forced into despair, is in a manner obliged to act accordingly, be his temper and inclination ever so well disposed. It is very seldom the case, that a horse is really and by nature vicious; but if such be found, he will despise all caresses, and then chastisements become necessary.

Correction, according as you use it, throws a horse into more or less violent action, which, if he be weak, he cannot support: but a vicious strong horse is to be considered in a very different light, being able both

to undergo and consequently to profit by all lessons; and is far preferable to the best-natured weak one upon earth. Patience and attention are never failing means to reclaim such a horse: in whatsoever manner he defends himself, bring him back frequently with gentleness (not however without having given him proper chastisement if necessary) to the lesson which he seems most averse to. Horses are by degrees made obedient, through the hope of recompense and the fear of punishment: how to mix these two motives judiciously together, is a very difficult matter; it requires much thought and practice; and not only a good head, but a good heart likewise. The coolest and best-natured rider will always succeed best. By a dexterous use of the incitements above-mentioned, you will gradually bring the horse to temper and obedience; mere force, and want of skill and coolness, would only tend to confirm him in bad tricks. If he be impatient or choleric, never strike him, unless he absolutely refuse to go forwards; which you must resolutely oblige him to do, and which will be of itself a correction, by preventing his having time to meditate and put in execution any defence by retaining himself. Resistance in horses, you must consider, is sometimes a mark of strength and vigour, and proceeds from spirit, as well as sometimes from vice and weakness. Weakness frequently drives horses into viciousness, when any thing wherein strength is necessary is demanded from them; nay, it inevitably must: great care therefore should always be taken to distinguish from which of these two causes any remedy or punishment is thought of. It may sometimes be a bad sign when horses do not at all defend themselves, and proceed from a sluggish disposition, a want of spirit, and of a proper sensibility. Whenever one is so fortunate as to meet with a horse of just the right spirit, activity, delicacy of feeling, with strength and good nature, he cannot be cherished too much; for such a one is a rare and inestimable jewel, and, if properly treated, will in a manner do every thing of himself. Horses are oftener spoilt by having too much done to them, and by attempts to dress them in too great a hurry, than by any other treatment.

If after a horse has been well suppled, and there are no impediments, either natural or accidental, if he still persists to defend himself, chastisements then become necessary: but whenever this is the case, they must not be frequent, but always firm, though always as little violent as possible; for they are both dangerous and very prejudicial when frequently or slightly played with, and still more so when used too violently.

It is impossible, in general, to be too circumspect in lessons of all kinds, in aids, chastisements, or caresses. Some have quicker parts, and more cunning, than others. Many will imperceptibly gain a little every day on the rider. Various, in short, are their dispositions and capacities. It is the rider's business to find out their different qualities, and to make them sensible how much he loves them, and desires to be loved by them; but at the same time that he does not fear them, and will be master.

Plunging is a very common defence among restive and vicious horses: if they do it in the same place, or backing, they must, by the rider's legs and spurs firmly

Of curing  
Restiveness,  
&c.



Plain Rules  
for bad  
Horsemen.

Plain Rules  
for bad  
Horsemen.

firmly applied, be obliged to go forwards, and their heads kept up high. But if they do it flying forwards, keep them back, and ride them gently and very slow for a good while together. Of all bad tempers and qualities in horses, those which are occasioned by harsh treatment and ignorant riders are the worst.

Rearing is a bad vice, and, in weak horses especially, a very dangerous one. Whilst the horse is up, the rider must yield his hand; and when the horse is descending, he must vigorously determine him forwards: if this be done at any other time but whilst the horse is coming down, it may add a spring to his rearing, and make him fall backwards. With a good hand on them, horses seldom persist in this vice; for they are themselves naturally much afraid of falling backwards. If this method fails, you must make the horse kick up behind, by getting somebody on foot to strike him behind with a whip; or, if that will not effect it, by pricking him with a goad.

Starting often proceeds from a defect in the sight; which therefore must be carefully looked into. Whatever the horse is afraid of, bring him up to it gently; if you caress him every step he advances, he will go quite up to it by degrees, and soon grow familiar with all sorts of objects. Nothing but great gentleness can correct this fault; for if you inflict punishment, the apprehension of chastisement becomes prevalent, and causes more starting than the fear of the object. If you let him go by the object, without bringing him up to it, you increase the fault, and confirm him in his fear: the consequence of which is, he takes his rider perhaps a quite contrary way from what he was going, becomes his master, and puts himself and the person upon him every moment in great danger.

With such horses as are to a very great degree fearful of any objects, make a quiet horse, by going before them, gradually entice them to approach nearer and nearer to the thing they are afraid of. If the horse, thus alarmed, be undisciplined and headstrong, he will probably run away with his rider; and if so, his head must be kept up high, and the snaffle sawed backwards and forwards from right to left, taking up and yielding the reins of it, as also the reins of the bit; but this latter must not be sawed backwards and forwards like the snaffle, but only taken up and yielded properly. No man ever yet did, or ever will, stop a horse, or gain any one point over him, by main force, or by pulling a dead weight against him.

#### SECT. VIII. Rules for bad Horsemen.

Thomson's  
Rules.

In the first place, every horse should be accustomed to stand still when he is mounted. One would imagine this might be readily granted; yet we see how much the contrary is practised. When a gentleman mounts at a livery-stable, the groom takes the horse by the bit, which he bends tight round his under jaw: the horse striving to go on, is forced back; advancing again, he frets, as he is again stopped short, and hurt by the manner of holding him. The rider, in the mean time, mounting without the bridle, or at least holding it but slightly, is helped to it by the groom, who being thoroughly employed by the horse's fluttering,

has at the same time both bridle and stirrup to give. This confusion would be prevented, if every horse was taught to stand still when he is mounted. Forbid your groom, therefore, when he rides your horse to water, to throw himself over him from a horse-block, and kick him with his leg, even before he is fairly upon him. This wrong manner of mounting is what chiefly teaches your horse the vicious habit against which we are here warning. On the other hand, a constant practice of mounting in the proper manner, is all that is necessary to prevent a horse's going on till the rider is quite adjusted in the saddle.

The next thing necessary therefore is, that the rider should mount properly. The common method is to stand near the croup or hinder part of the horse, with the bridle held very long in the right hand. By this manner of holding the bridle before you mount, you are liable to be kicked; and when you are mounted, your horse may go on some time, or play what gambols he pleases, before the rein is short enough in your hand to prevent him. It is common likewise for an awkward rider, as soon as his foot is in the stirrup, to throw himself with all his force to gain his seat; which he cannot do, till he hath first overbalanced himself on one side or the other: he will then wriggle into it by degrees. The way to mount with ease and safety is, to stand rather before than behind the stirrup. In this posture take the bridle short, and the mane together in your left hand, helping yourself to the stirrup with your right, so that your toe may not touch the horse in mounting. When your left foot is in the stirrup, move on your right, till you face the side of the horse, looking across over the saddle. Then with your right hand grasp the hinder part of the saddle; and with that and your left, which holds the mane and bridle, lift yourself upright on your left foot. Remain thus a mere instant on your stirrup, only so as to divide the action into two motions. While you are in this posture, you have a sure hold with both hands, and are at liberty, either to get safely down, or to throw your leg over and gain your seat. By this deliberate motion, likewise, you avoid, what every good horseman would endeavour to avoid, putting your horse into a flutter.

When you dismount, hold the bridle and mane together in your left hand, as when you mounted; put your right hand on the pommel of the saddle, to raise yourself; throw your leg back over the horse, grasp the hinder part of the saddle with your right hand, remain a moment on your stirrup, and in every respect dismount as you mounted; only what was your first motion when you mounted, becomes the last in dismounting. Remember not to bend your right knee in dismounting, lest your spur should rub against the horse.

It may be next recommended to hold your bridle at a convenient length. Sit square, and let not the purchase of the bridle pull forward your shoulder; but keep your body even, as it would be if each hand held a rein. Hold your reins with the whole grasp of your hand, dividing them with your little finger. Let your hand be perpendicular; your thumb will then be uppermost, and placed on the bridle. Bend your wrist



Plain Rules  
for bad  
Horsemen.

Plain Rules  
for bad  
Horsemen.

wrist a little outward; and when you pull the bridle, raise your hand toward your breast, and the lower part of the palm rather more than the upper. Let the bridle be at such a length in your hand, as, if the horse should stumble, you may be able to raise his head, and support it by the strength of your arms, and the weight of your body thrown backward. If you hold the rein too long, you are subject to fall backward as your horse rises.

If, knowing your horse perfectly well, you think a tight rein unnecessary, advance your arm a little (but not your shoulder) towards the horse's head, and keep your usual length of rein. By this means, you have a check upon your horse, while you indulge him.

If you ride with a curb, make it a rule to hook on the chain yourself; the most quiet horse may bring his rider into danger, should the curb hurt him. If, in fixing the curb, you turn the chain to the right, the links will unfold themselves, and then oppose a farther turning. Put on the chain loose enough to hang down on the horse's under lip, so that it may not rise and press his jaw, till the reins of the bridle are moderately pulled.

If your horse has been used to stand still when he is mounted, there will be no occasion for a groom to hold him: but if he does, suffer him not to touch the reins, but that part of the bridle which comes down the cheek of the horse. He cannot then interfere with the management of the reins, which belongs to the rider only; and holding a horse by the curb (which is ever painful to him) is evidently improper when he is to stand still.

Another thing to be remembered is, not to ride with your arms and elbows as high as your shoulders; nor let them shake up and down with the motion of the horse. The posture is unbecoming, and the weight of the arms (and of the body too if the rider does not sit still) acts in continual jerks on the jaw of the horse, which must give him pain, and make him unquiet, if he has a tender mouth or any spirit.

Bad riders wonder why horses are gentle as soon as they are mounted by skilful ones, tho' their skill seems unemployed: the reason is, the horse goes at his ease, yet finds all his motions watched; which he has sagacity enough to discover. Such a rider hides his whip, if he finds his horse is afraid of it; and keeps his legs from his sides, if he finds he dreads the spur.

Avoid the ungraceful custom of letting your legs shake against the sides of the horse: and as you are not to keep your arms and elbows high, and in motion; so you are not to rivet them to your sides, but let them fall easy. One may, at a distance, distinguish a genteel horseman from an awkward one: the first sits still, and appears of a piece with his horse; the latter seems flying off at all points.

It is often said with emphasis, that such a one has no *seat* on horseback; and it means, not only that he does not ride well, but that he does not sit on the right part of the horse. To have a *good seat*, is to sit on that part of the horse, which, as he springs, is the centre of motion; and from which, of course, any weight would be with most difficulty shaken. As in the rising and falling of a board placed in *equilibrio*, the centre will be always most at rest; the true seat

will be found in that part of your saddle, into which your body would naturally slide, if you rode without stirrups; and is only to be preserved by a proper poise of the body, though the generality of riders imagine it is to be done by the grasp of the thighs and knees. The rider should consider himself as united to his horse in this point; and when shaken from it, endeavour to restore the balance.

Perhaps the mention of the two extremes of a bad seat may help to describe the true one. The one is, when the rider sits very far back on the saddle, so that his weight presses the loins of the horse; the other, when his body hangs forward over the pommel of the saddle. The first may be seen practised by grooms, when they ride with their stirrups affectedly short; the latter, by fearful horsemen on the least flutter of the horse. Every *good* rider has, even on the hunting saddle, as *determined* a place for his thighs, as can be determined for him by the bars of a demi-peak. Indeed there is no difference between the seat of either; only, as in the first you ride with shorter stirrups, your body will be consequently more behind your knees.

To have a good seat yourself, your saddle must sit well. To fix a precise rule might be difficult: it may be a *direction*, to have your saddle press as nearly as possible on that part which we have described as the point of union between the man and horse; however, so as not to obstruct the motion of the horse's shoulders. Place yourself in the middle or lowest part of it: sit erect; but with as little constraint as in your ordinary sitting. The ease of action marks the gentleman: you may repose yourself, but not lounge. The set and studied erectness acquired in the riding-house, by those whose deportment is not easy, appears ungenteel and unnatural.

If your horse stops short, or endeavours by rising and kicking to unseat you, bend not your body forward, as many do in those circumstances: that motion throws the breech backward, and you off your fork or twist, and out of your seat; whereas, the advancing the lower part of your body, and bending back the upper part and shoulders, is the method both to keep your seat, and to recover it when lost. The bending your body back, and that in a great degree, is the greatest security in *flying* leaps; it is a security too, when your horse leaps *standing*. The horse's rising does not try the rider's seat; the lash of his hind legs is what ought chiefly to be guarded against, and is best done by the body's being greatly inclined back. Stiffen not your legs or thighs; and let your body be pliable in the loins, like the coachman's on his box. This loose manner of sitting will elude every rough motion of the horse; whereas the fixture of the knees, so commonly laid a stress on, will in great shocks conduce to the violence of the fall.

Was the cricket-player, when the ball is struck with the greatest velocity, to hold his hand firm and fixed when he receives it, the hand would be bruised, or perhaps the bones fractured by the resistance. To obviate this accident, he therefore gradually yields his hand to the motion of the ball for a certain distance; and thus by a due mixture of opposition and obedience, catches it without sustaining the least injury. The case is exactly the same in riding: the skilful horseman

Plain Rules  
for bad  
Horsemen.

will recover his poise by giving some way to the motion; and the ignorant horseman will be flung out of his seat by endeavouring to be fixed.

Stretch not out your legs before you; this will push you against the back of the saddle: neither gather up your knees, like a man riding on a pack; this throws your thighs upwards: each practice unseats you. Keep your legs straight down; and sit not on the most fleshy part of the thighs, but turn them inwards, so as to bring in your knees and toes: and it is more safe to ride with the ball of the foot pressing on the stirrup, than with the stirrup as far back as the heel; for the pressure of the heel being in that case behind the stirrup, keeps the thighs down.

When you find your thighs thrown upwards, widen your knees to get them and the upper part of your fork lower down on the horse. Grasp the saddle with the hollow or inner part of your thighs, but not more than just to assist the balance of your body: this will also enable you to keep your spurs from the horse's sides, and to bring your toes in, without that affected and useless manner of bringing them in practised by many. Sink your heels straight down; for while your heels and thighs keep down, you cannot fall: this (aided with the bend of the back) gives the security of a seat, to those who bear themselves up in their stirrups in a swift gallop, or in the alternate rising and falling in a full trot.

Let your seat determine the length of your stirrups, rather than the stirrups your seat. If more precision is requisite, let your stirrups (in the hunting saddle) be of such a length, as that, when you stand in them, there may be the breadth of four fingers between your seat and the saddle.

It would greatly assist a learner, if he would practise riding in a large circle, as directed sect. ii. without stirrups; keeping his face looking on the outward part of the circle so as not to have a full view of the horse's head, but just of that ear which is on the outward part of the circle; and his shoulder, which is towards the centre of the circle, very forward. By this means you learn to balance your body, and keep a true seat, independent of your stirrups: you may probably likewise escape a fall, should you at any time lose them by being accidentally shaken from your seat.

As the seat in some measure depends on the saddle, it may not be amiss to observe, that because a saddle with a high pommel is thought dangerous, the other extreme prevails, and the pommel is scarce allowed to be higher than the middle of the saddle. The saddle should lie as near the back-bone as can be, without hurting the horse; for the nearer you sit to his back, the better seat you have. If it does so, it is plain the pommel must rise enough to secure the withers from pressure: therefore, a horse whose withers are higher than common, requires a higher pommel. If, to avoid this, you make the saddle of a more straight line, the inconvenience spoken of follows; you sit too much above the horse's back, nor can the saddle form a proper seat. There should be no ridge from the button at the side of the pommel, to the back part of the saddle. That line also should be a little concave, for your thighs to lie at ease. In short, a saddle ought to be, as nearly as possible, as if cut out of the horse.

Plain Rules  
for bad  
Horsemen.

When you want your horse to move forward, raise his head a little, and touch him gently with your whip; or else, press the calves of your legs against his sides. If he does not move fast enough, press them with more force, and so till the spur just touches him. By this practice he will (if he has any spirit) move upon the least pressure of the leg. Never spur him by a kick; but if it be necessary to spur him briskly, keep your heels close to his sides, and slacken their force as he becomes obedient.

When your horse attempts to be vicious, take each rein separate, one in each hand, and advancing your arms forward, hold him very short. In this case, it is common for the rider to pull him hard, with his arms low. But the horse by this means having his head low too, has it more in his power to throw out his heels: whereas, if his head be raised very high, and his nose thrown out a little, which is consequent, he can neither rise before nor behind; because he can give himself neither of those motions, without having his head at liberty. A plank placed in *equilibria*, cannot rise at one end unless it sinks at the other.

If your horse is headstrong, pull not with one continued pull, but stop, and back him often, just shaking the reins, and making little repeated pulls till he obeys. Horses are so accustomed to bear on the bit when they go forward, that they are discouraged if the rider will not let them do so.

If a horse is loose-necked, he will throw up his head at a continued pull; in which situation, the rider, seeing the front of his face, can have no power over him. When your horse does thus, drop your hand and give the bridle play, and he will of course drop his head again into its proper place: while it is coming down, make a second gentle pull, and you will find his mouth. With a little practice, this is done almost instantaneously; and this method will stop, in the distance of a few yards, a horse, which will run away with those who pull at him with all their might. Almost every one must have observed, that when a horse feels himself pulled with the bridle, even when he is going gently, he often mistakes what was designed to stop him, as a direction to bear on the bit and to go faster.

Keep your horse's head high, that he may raise his neck and crest; play a little with the rein, and move the bit in his mouth, that he may not press on it in one constant and continued manner: be not afraid of raising his head too high; he will naturally be too ready to bring it down, and tire your arms with its weight, on the least abatement of his mettle. When you feel him heavy, stop him, and make him go back a few paces: thus you break by degrees his propensity to press on his bridle.

You ought not to be pleased (though many are) with a round neck, and a head drawn in towards his breast: let your horse carry his head bridling in, provided he carries it high, and his neck arching upwards; but if his neck bends downwards, his figure is bad, his sight is too near his toes, he leans on the bridle, and you have no command over him. If he goes pressing, but lightly on the bridle, he is the more sure-footed, and goes pleasanter; as your wrist only may guide him. If he hangs down his head, and makes you support the weight of that and his neck, with your arms bear-

ing.



Plain Rules  
for bad  
Horsemen.

Plain Rules  
for bad  
Horsemen.

ing on his fore-legs, (which is called *being on his shoulders*), he will strike his toes against the ground, and stumble.

If your horse is heavy upon the bit, tie him every day, for an hour or two, with his tail to the manger, and his head as high as you can make him lift it, by a rein on each post of the stall, tied to each ring of the snaffle bit.

Horse-breakers and grooms have a great propensity to bring a horse's head *down*, and seem to have no feat without a strong hold by the bridle. They know indeed, that the head should yield to the reins, and the neck form an arch; but do not take the proper pains to make it an arch *upward*. A temporary effect of attempting to raise a horse's head, may perhaps be making him push out his nose. They will here tell you, that his head is too high already; whereas it is not the distance from his *nose*, but from the *top* of his head to the ground, which determines the head to be high or low. Besides, although the fault is said to be in the manner of carrying the head, it should rather be said to be in that of the neck; for if the neck was raised, the head would be more in the position of one set on a well formed neck.

The design therefore of lifting up the head, is to raise the neck, and *thereby* bring in the head; for even while the bridle makes the same line from the rider's hand to the bit, the horse's nose may be either drawn in, or thrust out, according as his neck is raised or depressed. Instead of what has been here recommended, we usually see colts broke with their heads caved down very low, their necks stiff, and not in the least suppled. When the breaking-tackle is left off, and they are mounted for the road, having more food and rest, they frequently plunge, and a second breaking becomes necessary. Then, as few gentlemen can manage their own horses, they are put into the hands of grooms, from whom they learn a variety of bad habits.

If, on the other hand, your horse carries his head (or rather his nose) too high, he generally makes some amends by moving his shoulders lightly, and going safely. Attend to the cause of this fault. Some horses have their necks set so low on their shoulders, that they bend first down, then upwards, like a flag's. Some have the upper line of their necks, from their ears to their withers, too short. A head of this sort cannot possibly bend inwards and form an arch, because the vertebræ (or neck bones) are too short to admit of flexure; for in long and short necked horses the number of the vertebræ is the same. In some, the jaw is so thick, that it meets the neck, and the head by this means has not room to bend. On the other hand, some have the under line from the jaw to the breast so short, that the neck cannot rise.

In all these cases you may gain a *little* by a nice hand with an easy bit; but no curb, martingale, or other forcible method, will *teach* a horse to carry his head or neck in a posture which nature has made uneasy to him. By trying to pull in his nose farther than he can bear, you will add a bad habit to nature. You could not indeed *contrive* a more effectual method to make him continually toss his nose up, and throw his foam over you.

The rule already given to ride a loose-necked horse,

will be a proper one for all light-mouthed horses: one caution being added, which is, always to search whether his saddle or girths may not in some way pinch him; and whether the bit may not hurt his lip by being too high in his mouth: because, whenever he frets from either of these causes, his head will not be steady.

It is a common custom to be always pulling at the bridle, as if to set off to advantage either the spirit of the horse, or the skill of the rider. Our horses therefore are taught to hold their heads low, and pull so, as to bear up the rider from the saddle, standing in his stirrups, even in the gentlest gallop: how very improper is this, we are experimentally convinced, when we happen to meet with a horse which gallops otherwise. We immediately say, *he canters excellently*, and find the ease and pleasure of his motion. When horses are designed for the race, and swiftness is the only thing considered, the method may be a good one.

It is not to be wondered that *dealers* are always pulling at their horses; that they have the spur constantly in their sides, and are at the same time continually checking the rein: by this means they make them bound, and champ the bit, while their rage has the appearance of spirit. These people ride with their arms spread, and very low on the shoulders of their horses: this method makes them stretch their necks, and gives a better appearance to their fore-hands; it conceals also a thick jaw, which, if the head was up, would prevent its yielding to the bit; it hides likewise the ewe-neck, which would otherwise show itself. Indeed, if you have a horse unsteady to the bit, formed with a natural heavy head, or one which carries his nose obstinately in the air, you must find his mouth where you can, and make the best of him.

Many horses are taught to start by whipping them for starting. How is it possible they can know it is designed as a punishment? In the riding-house, you teach your horse to rise up before, and to spring and lash out his hinder legs, by whipping him when tied between two pillars, with his head a little at liberty. If he understood this to be a punishment for doing so, he would not by that method learn to do it. He seems to be in the same manner *taught* to spring and fly when he is frightened. Most horses would go quietly past an object they were beginning to fly from, if their riders, instead of gathering up their bridles, and showing themselves so ready, should throw the reins loose upon their necks.

When a horse starts at any thing on one side, most riders turn him out of the road, to make him go up to what he starts at: if he does not get the better of his fear, or readily comply, he generally goes past the object, making with his hinder parts, or croup, a great circle out of the road; whereas, he should learn to keep straight on, without minding objects on either side.

If he starts at any thing on the left, hold his head high, and keep it straight in the road, pulling it *from* looking at the thing he starts at, and keeping your right leg hard pressed against his side, towards his flank: he will then go straight along the road. By this method, and by turning his head a little more, he may be forced with his croup close up to what frightened him; for as his head is pulled one way, his croup necessarily turns the other. Always avoid a



Plain Rules  
for bad  
Horsemen.

quarrel with your horse, if you can: if he is apt to start, you will find occasions enough to exercise his obedience, when what he starts at lies directly in his way, and you *must* make him pass; if he is not subject to start, you should not quarrel with him about a trifle.

It must be observed, however, that this rule in going past an object may perhaps be a little irregular in a managed horse, which will always obey the leg: but even such a horse, if he is really afraid, and not restive, it may not be amiss to make look another way; unless the object be something you would particularly accustom him to the sight of.

The case will also be different with a horse whose fear is owing to his being not used to objects; but such a one is not to be rode by any horseman to whom these rules are directed: the starting here meant arises merely from the horse's being pamper'd, and springing through liveliness.

The notion of the necessity of making a horse go immediately up to every thing he is afraid of, and not suffering him to become master of his rider, seems to be in general carried too far. It is an approved and good method to conquer a horse's fear of the sound of a drum, by beating one near to him at the time of feeding him: this not only familiarizes the noise to him, but makes it pleasant, as a fore-runner of his meat\*; whereas, if he was whipped up to it, he might perhaps start at it as long as he lived. Might not this be applied to his starting at other things, and show that it would be better to suffer him (provided he does not turn back) to go a little from and avoid an object he has a dislike to, and to accustom him to it by degrees, convincing him, as it were, that it will not hurt him; than to punish him, quarrel with him, and perhaps submit to his will at last, while you insist on his overcoming his fear in an instant? If he sees a like object again, it is probable he will recollect his dread, and arm himself to be disobedient.

We are apt to suppose that a horse fears nothing so much as his rider: but may he not, in many circumstances, be afraid of instant destruction? of being crushed? of being drowned? of falling down a precipice? Is it a wonder that a horse should be afraid of a loaded waggon? may not the hanging load seem to threaten the falling on him? There cannot be a rule more general, than, in such a case, to show him there is room for him to pass. This is done by turning his head a very little from the carriage, and pressing your leg, which is farthest from it, against his side.

A horse is not to stop without a sign from his rider.—Is it not then probable, that when driven up to a carriage he starts at it, he conceives himself obliged either to attack or run against it? Can he understand the rider's spurring him with his face directed to it, as a sign for him to pass it? That a horse is easily alarmed for his face and eyes (he will even catch back his head from a hand going to caress him); that he will not go with any force, face to face, even to another horse (if in his power to stop); and that he sees perfectly sideways,—may be useful hints for the treatment of horses with regard to starting.

Though you ought not to whip a horse for starting, there can be no good effect from clapping his neck with your hand to encourage him. If one took any

notice of his starting, it should be rather with some tone of voice which he usually understood as an expression of dislike to what he is doing; for there is *opposition* mixed with his starting, and a horse will ever repeat what he finds has foiled his rider.

Notwithstanding the directions above given, of not pressing a horse up to a carriage he starts at; yet if one which you apprehend will frighten him meets you at a narrow part of the road, when you have once let him know he is to pass it, be sure you remain determined, and press him on. Do this more especially when part of the carriage has already passed you: for if, when he is frightened, he is accustomed to go back, and turn round, he will certainly do it if he finds, by your hand slackening, and legs not pressing, that you are irresolute; and this at the most dangerous point of time, when the wheels of the carriage take him as he turns. Remember not to touch the curb rein at this time; it will certainly check him. It is not known to every one, that the person who would lead a horse by the bridle, should not turn his face to him when he refuses to follow him: if, besides this, he raises his arms, shows his whip, or pulls the bridle with jerks, he frightens the horse, instead of persuading him to follow; which a little patience may bring about.

Ride with a snaffle; and use your curb, if you have one, only occasionally. Choose your snaffle full and thick in the mouth, especially at the ends to which the reins are fastened. Most of them are made too small and long; they cut the horse's mouth, and bend back over the bars of his jaw, working like pincers.

The management of the curb is too nice a matter to enter on here, farther than to prescribe great caution in the use of it: a turn of the wrist, rather than the weight of your arm, should be applied to it. The elasticity of a rod, when it hath hooked a fish, may give you some idea of the proper play of a horse's head on his bridle; his spirit and his pliability are both marked by it.

A horse should never be put to do any thing in a curb which he is not ready at: you may force him, or pull his head any way with a snaffle; but a curb acts only in a straight line. It is true, that a horse will be turned out of one track into another by a curb, but it is because he knows it as a *signal*. When he is put to draw a chair, and does not understand the necessity he is then under of taking a larger sweep when he turns, you frequently see him *restrive*; as it is then called: but put him on a snaffle, or buckle the rein to that part of the bit which does not curb him; and the horse submits to be pulled about, till he understands what is desired of him. These directions suppose your horse to have spirit, and a good mouth: if he has not, you must take him as he is, and ride him with such a bit as you find most easy to yourself.

When you ride a journey, be not so attentive to your horse's nice carriage of himself, as to your encouragement of him, and keeping him in good humour. Raise his head; but if he flags, you may indulge him with bearing a little more upon the bit than you would suffer in an airing. If a horse is lame, tender-footed, or tired, he naturally hangs upon his bridle.

\* See  
sect. v.

Plain Rules  
for bad  
Horsemen.



**Plain Rules for bad Horsemen.** On a journey, therefore, his mouth will depend greatly on his strength and the goodness of his feet. Be then very careful about his feet, and let not a farrier spoil them. You will be enabled to keep them from danger, by the directions given under the article FARRIERY, p. 167.

Very few, although practised in riding, know they have any power over a horse but by the bridle; or any use for the spur, except to make him go forward. A little experience will teach them a farther use. If the left spur touches him (and he is at the same time prevented from going forward), he has a sign, which he will soon understand, to move sideways to the right. In the same manner to the left, if the right spur is closed to him: he afterwards, through fear of the spur, obeys a touch of the leg; in the same manner as a horse moves his croup from one side of the stall to the other, when any one strikes him with his hand. In short, his croup is guided by the leg, as his head is by the bridle. He will never disobey the leg, unless he becomes restive. By this means you will have a far greater power over him: he will move sideways, if you close one leg to him; and straight forward, if both: even when he stands still, your legs held near him will keep him on the watch; and with the slightest, unseen motion of the bridle upwards, he will raise his head, and show his forehead to advantage.

On this use of the legs of the rider, and guidance of the croup of the horse, are founded all the *airs* (as the riding-masters express themselves) which are taught in the manege; the passage, or side-motion of troopers to close or open their files, and indeed all their evolutions. But the convenience of some degree of this discipline for common use is the reason of mentioning it here. It is useful if a horse is apt to stumble or start. If to the first, by pressing your legs to his flank, and keeping up his head, he is made to go light on his fore-legs, which is aiding and supporting him; and the same if he does actually stumble, by helping him at the very instant to exert himself, while as yet any part of him remains not irrecoverably impressed with the precipitate motion. Hence this use of the hand and legs of the rider is called *giving aids* to a horse; for, as to holding up the weight of a heavy unactive horse, by mere pulling, it is as impossible as to recover him when falling down a precipice.

A horse is supported and helped by the hands and legs of his rider in every action they require of him; hence he is said to perform his *airs* by the *aids* from his rider.

The same manner is useful if a horse starts. For if when he is beginning to fly to one side, you leg on the side he is flying to, he stops his spring immediately. He goes past what he started at, keeping straight on, or as you choose to direct him; and he will not fly back from any thing if you press him with both legs. You keep his haunches under him, going down a hill; help him on the side of a bank; more easily avoid the wheel of a carriage; and approach more gracefully and nearer to the side of a coach or horseman. When a pampered horse curvets irregularly, and twists his body to and fro, turn his head either to the right or left, or both alternately (but without letting him move out of the track), and press your leg to the opposite side: your horse cannot then spring on his hind-legs to one side, because your leg prevents him; nor to the other, because his head looks that way, and a horse does not start and spring to the side on which he looks. Here it may not be amiss to observe the impropriety of the habit which many riders have, of letting their legs shake against the sides of the horse: if a horse is taught, they are then continually pressing him to violent action; and if he is not, they render him insensible and incapable of being taught. The fretting of a hot horse will hence be excessive, as it can no otherwise be moderated than by the utmost stillness of the seat, hands, and legs of the rider.

Colts at first are taught to *bear* a bit, and by degrees to *pull* at it. If they did not press it, they could not be guided by it. By degrees they find their necks stronger than the arms of a man; and that they are capable of making great opposition, and often of foiling their riders. Then is the time to make them supple and pliant in every part. The part which of all others requires most this pliancy is the neck. Hence the metaphor of *stiff-necked* for *disobedient*. A horse cannot move his head but with the muscles of his neck: this may be called his *helm*; it guides his course, changes and directs his motion.

The use of this pliancy in the different parts and limbs of a horse has been already shown in a former section. The present section being directed to the *unexperienced* horseman, it may suffice to add, that his idea of suppleness need only be, that of an ability and readiness in a horse to move every limb, on a sign given him by the hands or legs of his rider; as also, to bend his body, and move in a short compass, quick and collected within himself, so as instantly to be able to perform any other motion.

**Plain Rules for bad Horsemen.**

H O R

**HORSHAM**, a town of Suffex, seated near St Leonard's forest, 38 miles from London. It has its name from Horfa, brother to Hengist the Saxon; and is one of the largest towns in the county. It has sent members to parliament ever since the 30th of Edward I. and is the place where the county-gaol is held, and often the assizes. It is a borough by prescription, with the title of two bailiffs and burghage-holders within and without the borough, &c. who elect the members of

H O R

parliament, and they are returned by the bailiffs chose yearly by a court-leet of the lord of the manor, who return four candidates to the steward, and he nominates two of them for the office. Here is a very fine church, and a well endowed free-school. Great store of poultry is bought up for London at its market on Saturday, and it has a patent also for a monthly market.

**HORSTIUS** (James), professor of medicine in the university

**Horfica.**

Hortusius  
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Hortus.

university of Helmstadt, in the 16th century. He joined devotion with the knowledge and practice of physic. He carefully prayed to God to bless his prescriptions, and published a form of prayer upon this subject. He also wrote, 1. A treatise on the qualities of a good physician. 2. Another on the qualities of a good apothecary. 3. A treatise of the plague, in German. 4. A commentary *in libros Hippocratis de corde*, and other works.

HORSTIUS (Gregory), nephew of the former, called *the Æsculapius of Germany*, published several books, which are esteemed.

HORTAGILERS, in the grand signior's court, upholsterers, or tapestry-hangers. The grand signior has constantly 400 in his retinue when he is in the camp: these go always a day's journey before him, to fix upon a proper place for his tent, which they prepare first; and afterwards those of the officers, according to their rank.

HORTENSIUS (Quintus), a celebrated Roman orator, the cotemporary of Cicero, pleaded with universal applause at 19 years of age, and continued the same profession during 48 years. But being at last eclipsed by Cicero, he quitted the bar, and embraced a military life; became a military tribune, prætor, and afterwards consul, about 70 B. C. Cicero speaks of him in such a manner as makes us regret the loss of his orations. Hortensius had a wonderful memory, and delivered his orations without writing down a single word, or forgetting one particular that had been advanced by his adversaries. He died very rich, a little before the civil war, which he had endeavoured by all possible means to prevent.

HORTUS SICCUS, a DRY GARDEN; an appellation given to a collection of specimens of plants, carefully dried and preserved.

The value of such a collection is very evident, since 1000 minutiae may be preserved in the well dried specimens of plants, which the most accurate engraver would overlook. We shall therefore give two methods of drying and preserving a *hortus siccus*; the first by Sir Robert Southwell in *Philosophical Transactions*, n° 237.; and the other by Dr Hill, in his review of the works of the Royal Society, with his objections to Sir Robert's method.

According to the former gentleman, the plants are to be laid flat between papers, and then put between two smooth plates of iron, screwed together at the corners; and in this condition committed to a baker's oven for two hours. When taken out, they are to be rubbed over with a mixture of equal parts of aquafortis and brandy; and after this to be fastened down on paper with a solution of the quantity of a walnut of gum tragacanth dissolved in a pint of water. See HERBAL.

To this the Doctor objects, that the heat of an oven is much too uncertain to be employed in so nice an operation; and that the space of time ordered for continuing the plants in it is of no information, unless the degree of heat, and even the different nature of the plant as to its succulency and the firmness or tenderness of its fibres, be attended to; there being scarcely any two plants alike in these particulars: consequently the degree and duration of heat sufficient for one plant would destroy another. Beside which,

the acid used destroys the colour of many plants; and never recovers that of others lost in the drying; and frequently after the plant is fixed down, rots both the paper it is fixed to, and that which falls over it. Dr Hill's method is as follows. Take a specimen of a plant in flower, and with it one of its bottom leaves if it have any; bruise the stalk if too rigid, or slit it if too thick: spread out the leaves and flowers on paper, cover it with more paper, and lay a weight over all. At the end of 18 hours take out the plants, now perfectly flattened, and lay them on a bed of dry common sand; sift more dry sand over them to the depth of two inches, and thus let them lie about three weeks: the less succulent dry much sooner, but they take no harm afterward. If the floor of a garret be covered in spring with sand two inches deep, leaving space for walking to the several parts, it will receive the collection of a whole summer; the covering of sand being sifted over every parcel as laid in, they need no farther care from the time of laying them till they are taken up to be stuck on paper. The cement used by the Doctor is thus prepared: early in the spring, put two ounces of camphor into three quarts of water in a large bottle, shake it from time to time, and when the first collected plants are ready for the fastening down, put into a pint of the water, poured off into an earthen vessel that will bear the fire, two ounces of common glue, such as is used by the carpenters, and the same quantity of ichthyocolla beat to shreds; let them stand 36 hours, then gently boil the whole a few moments, and strain it off through a coarse cloth: this is to be warmed over a gentle heat when it is to be used, and the back of the plants smeared over with a painter's brush: after this lay them on paper, and gently press them for a few minutes, then expose them to the air a little; and finally, lay them under a small weight between quires of paper to be perfectly dried.

It is scarce to be conceived how strongly the water becomes impregnated with the camphor by this simple process: a part of it indeed flies off in the making of the cement and the using of it: but enough remains with the plants to prevent the breeding of insects in it. He farther observes, that plants may be dried very well without sand, by only putting them frequently into fresh quires of paper, or a few, by only pressing them between the leaves of a book: but the sand method preserves the colour best, and is done with least trouble.

Another method much better than that of the oven is the flattening and drying the plant by passing a common smoothing iron for linen over the papers between which it is laid: but for nice things the most perfect of all methods is that by a common sand heat, such as is used for chemical purposes. The cold sand is to be spread smooth upon this occasion, the plant laid on it carefully flatted, and a thick bed of sand sifted over: the fire is then to be made, and the whole process carefully watched until by a very gentle heat the plant be carefully dried. The colour of the tenderest herb may by this manner be preserved; and flowers, that can no way else be preserved, may be managed perfectly well thus.

HORUS, a renowned deity of ancient Egypt. He was an emblem of the sun. Plutarch (in his treatise *de Iside et Osiride*) says, "that virtue which presides over

Hortus,  
Horus.











